www.AKCP.com

SecurityProbe 5ES
User Manual

Help Version updated till firmware 403H

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1) Introduction

1. What is securityProbe 5E Standard?

The securityProbe-5ES Standard integrates over 10 years of environmental monitoring experience with the latest technology to push the boundaries of disaster protection. Now you can sense and see problems before they lead to business disruptions. It is a high speed, accurate, intelligent monitoring device, featuring a completely embedded host and Linux Operating System. The design is based on our successful securityProbe 5E, but without the camera inputs. This gives you everything you need and nothing you don't!

AKCP has prided itself on bringing a low cost, easy to use monitoring solution to market with the securityProbe-5ES.

2. How to use this manual

This manual is meant to provide the user with a step by step guide on how to configure and set up their unit. It utilizes screen shots in an effort to make things simpler for the user to follow. It is split up into sections that form “mini tutorials”. These cover the basic set up and common configurations of the unit, and give an introduction to its most useful features.

At the end of the manual there is a FAQ section that provides some further in-depth information regarding specific set ups and answers some commonly asked questions. If you need any further information or help with using your unit then please contact us on support@akcp.com and one of our technical support staff will be only to pleased to help you with any information you require.

3. Package Contents

Your Securityprobe-5ES package contains the following items:-

- 1x Product CD
- 1x 5ft Crossover cable
- 1x THS00 with 5 ft straight cable
- 1x 7.0 – 9 V, 2.5 A power supply
- 2x Brackets for rack mounting
- 1x Blue quick-start guide.

3. Front and rear panels

Fig 1 &2. Front panel ***(Note: Units shipped after February 2013 will have the two expansion ports on the front panel)***

The front panel has several LEDs which display the units status and notify you as to its activity.

1. **Power LED**

   When the unit is powered up the power LED will be lit continuously. If the power LED is flashing then it indicates a problem with the CPU. If you notice this then please contact us on support@akcp.com

2. **Ethernet LED**

   The ***Activity*** and ***Link*** LEDs indicate network connectivity and activity. The Link LED will light up when there is a network connection present. The activity LED will flash when there is network traffic being sent or received by the unit.

3. **Status / Online LEDs**

   These are numbered 1 – 8. They are used to indicate the connectivity status of the sensors connected to each port. These LEDs also can be used to indicate system status when undertaking various operations.

   1. The LEDs will indicate the progress of an upgrade. The red LEDs will move from left to right to indicate activity, and the green LEDs will indicate overall progress of the upgrade. When all the red lights are off and all green are on the upgrade / recovery process is complete.

   2. These lights will indicate if the unit is operating in safe mode. This is when the unit loads the Operating System (OS) with a minimal set of drivers. If your device enters safe mode after rebooting then please contact us on support@akcp.com

3. The unit may enter recovery mode if a firmware upgrade has been incomplete. This will be indicated by the unit displaying a continuously lit row of red LEDs. If this happens please contact us on support@akcp.com

4. Mic

The mic is a small hole for access to the internal microphone. This can be used as a sound sensor (or an external mic can be used)

5. Expansion Ports

There are four expansion ports numbered from E1 – E4. These are expansion Ports for connecting either the 8port expansion or 16 dry contact expansion modules.

Units shipped after February 2013 have the two expansion ports E-1 and E-2.

5. Removable SD slot

This slot so where you can place your SD card which can store data such as pictures taken from the CCTV camera, sounds recorded from the internal microphone, and also the current firmware of the unit.

Fig 2. Rear panel.

The rear panel of the unit is home to various ports and connections. The functions of these are as follows :-

Reset button.

The black tact switch button is used to perform the following functions

1. A single press will announce the IP address of the unit. This is audible through the internal speaker. It also broadcasts the IP address to the IPset program.

2. Turns off password checking when accessing the web based interface (hold down for 7 seconds)

3. To reboot the unit into the firmware upgrade mode (hold down for 12 seconds)

2. Sensor ports

There are 8 RJ45 ports numbered from 1 – 8. These are for connecting AKCP intelligent sensors to the unit.

3. USB port

The unit is equipped with one USB 1.1 port. This can be used, for example, to connect a USB GPRS/GSM compatible modem, a USB WiFi dongle or USB Bluetooth dongle.

4. Mic Out

This is used to connect an external microphone for voice modem applications.

5. Audio in / out

The in is used to connect an external microphone, the output for external speakers.

6. RS485 Port

Used for Modbus connectivity. We support Modbus master or slave.

7. Power Connector

This is a 7.5V DC plug. We recommend you using a 7.0 – 9 V, 2.5 A power supply.

8. Ethernet Port

This RJ45 port is used to connect your unit to the network.

9. External ground

The EXT. GND can be used to external ground the unit.

2) Installation

1. Setting up the IP address

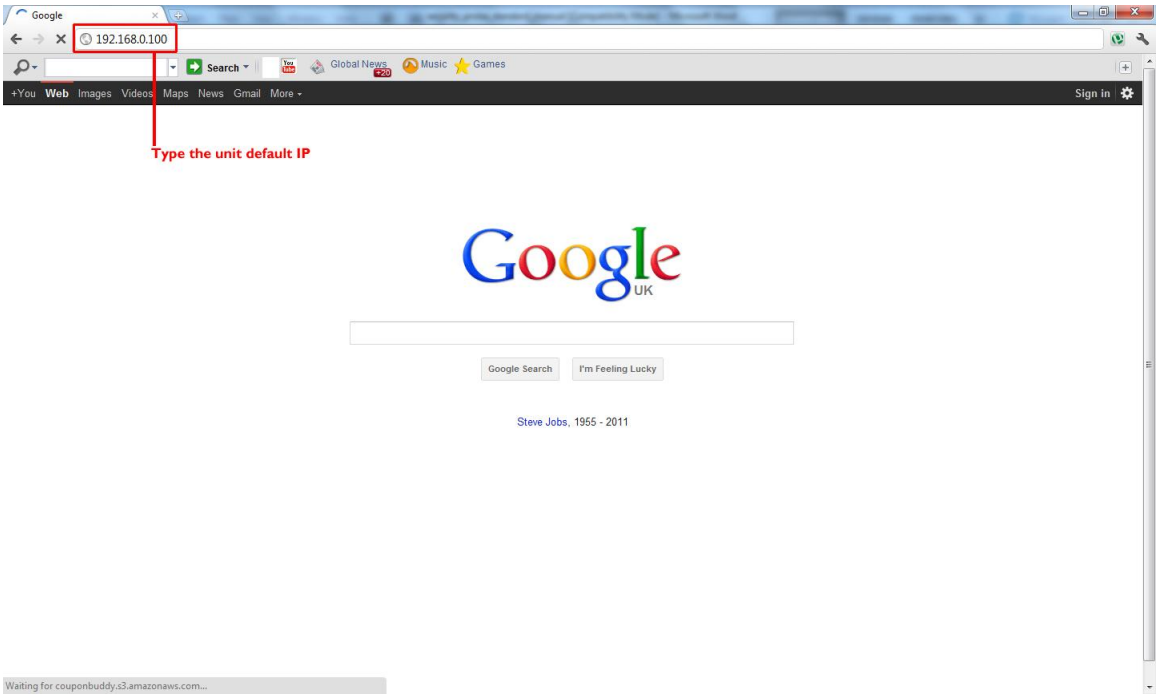
Every unit is shipped with the default IP address of **192.168.0.100** First we will go through the process of changing this IP address to fit your own network configuration.

Ensure the following items are available to you before starting:-

1. RJ45 CAT5 crossover cable with RJ45 male connection
2. A PC with Ethernet card or LAN socket.
3. Power socket for the unit to connect to

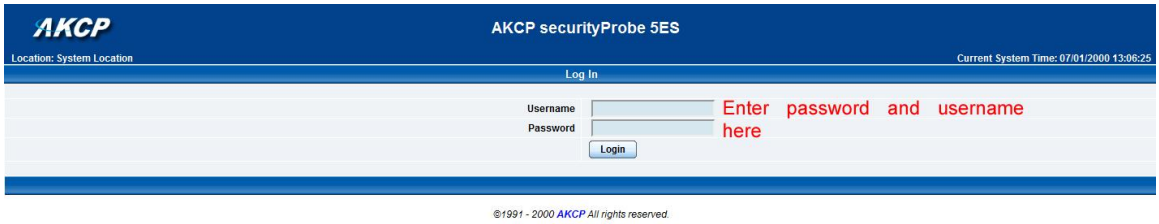
a) Connect the unit via the Ethernet port of the unit to your computers LAN or Ethernet port with a CAT5 crossover cable.

b) Open a web browser and type the default IP address, hit enter.

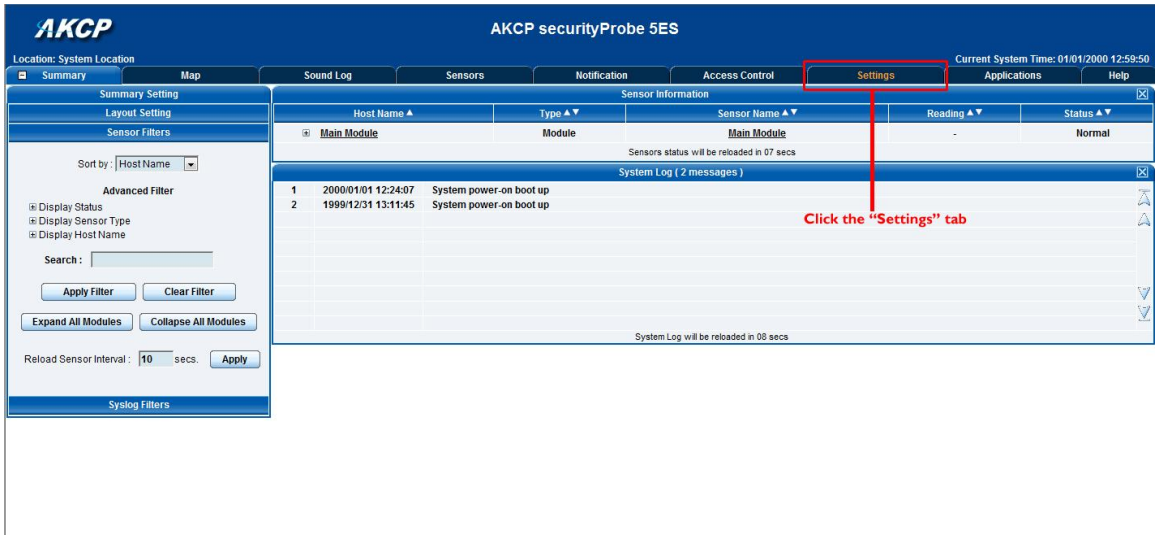


In some cases your computer might not be able to connect to this default IP address. In this situation you need to set up your computers routing table to allow access to this. See the appendix on how to setup this.

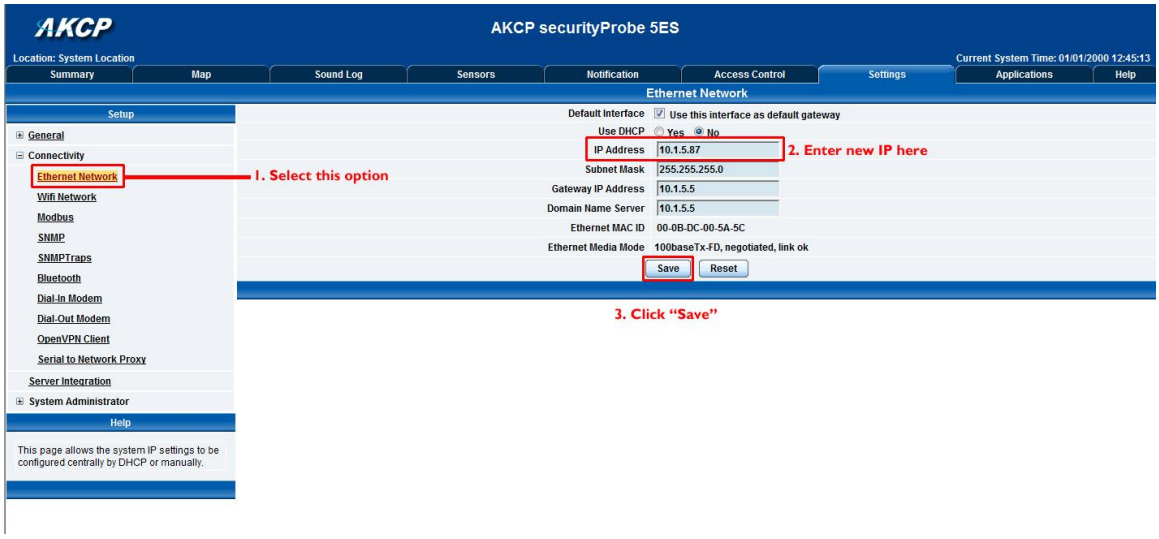
c) You will now be presented with the following screen. The default password for Admin is “public”. To make your unit secure and change the password.



d) Next the home page will be displayed. It will look similar to this.



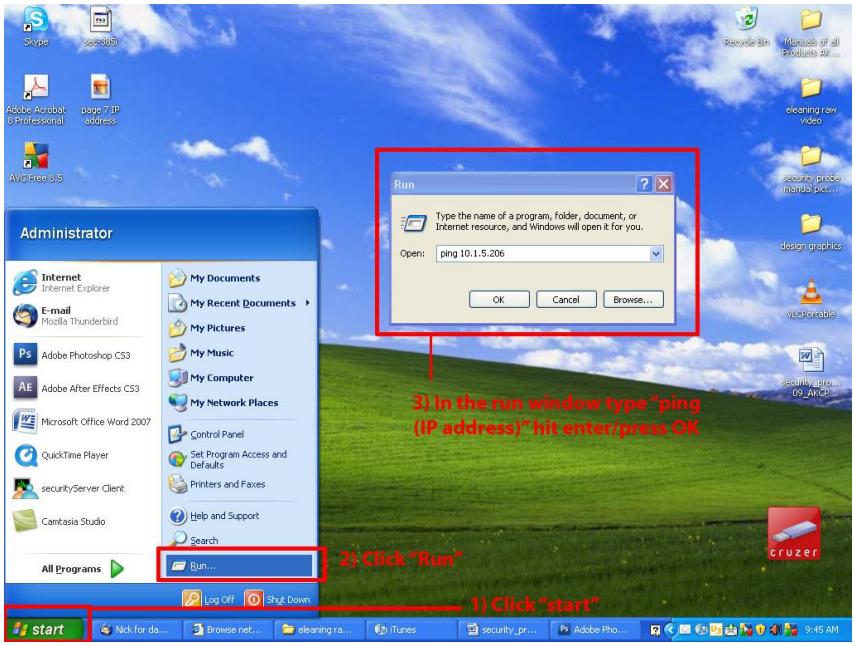
e) Click on "Ethernet network" from the list on the left frame of the page.



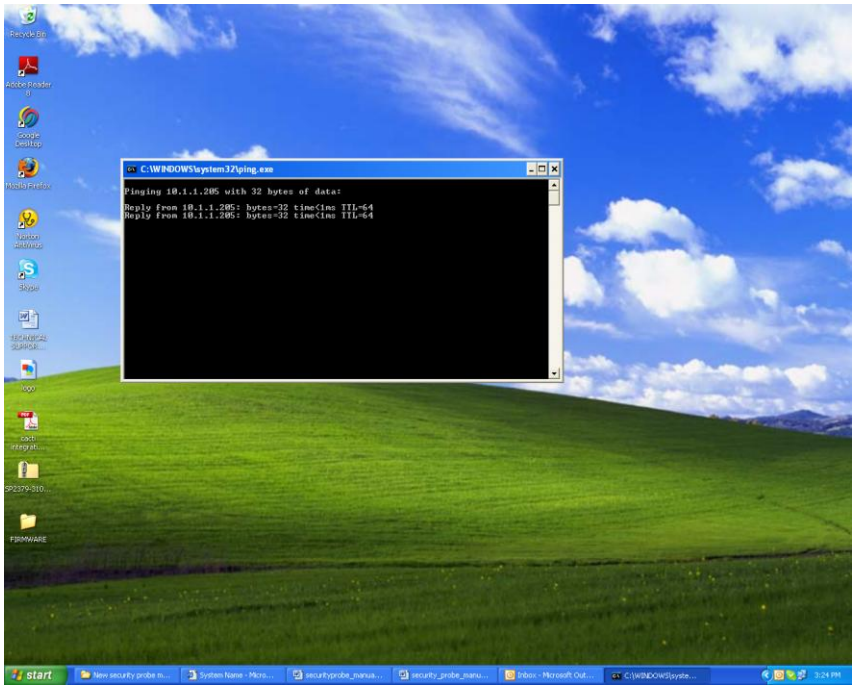
Note. The unit ships with DHCP disabled. If you wish to use a DHCP server to obtain the IP address then see the "Using DHCP" section of the FAQ>

2. Testing the new IP address with the “ping” command

Once you have assigned the new IP address use the “ping” command to test the unit. This can also be used as a diagnostic tool in order to check whether your unit is connected to the network.



After hitting “enter” you will get an MS DOS prompt window that will show the ping results (as below). If unsuccessful you will get a message saying “request timed out”. This indicates either an incorrect IP address or a unit that is not connected to the network.


C:\WINDOWS\system32\ping.exe
Pinging 10.1.1.205 with 32 bytes of data:
Reply from 10.1.1.205: bytes=32 time<1ms TTL=64
Reply from 10.1.1.205: bytes=32 time<1ms TTL=64
start

3. Firmware upgrade

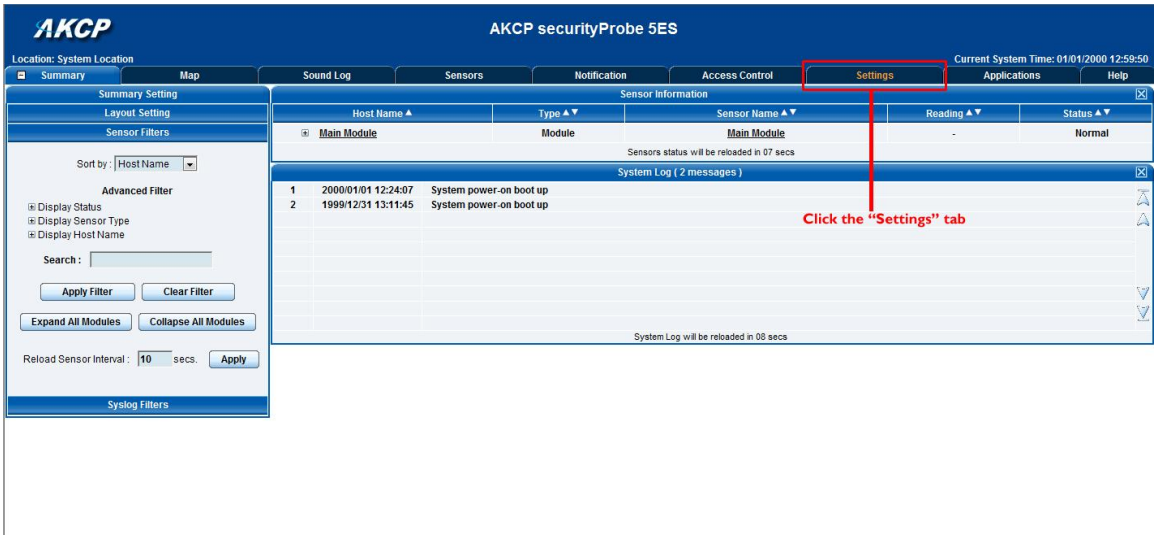
Ensure you are running the latest firmware. You will also need to download the latest firmware from our website (http://www.akcp.com/company/firmwareupdate.htm). Log into our webpage using your MAC address, this is found on a sticker on the base of the unit. After the download navigate back to the web based interface (units IP address. This manual will refer to the DEFAULT IP address, 192.168.0.1 you need to substitute this for your own IP address if you have changed it)

This tutorial provides you the information needed to upgrade the firmware.

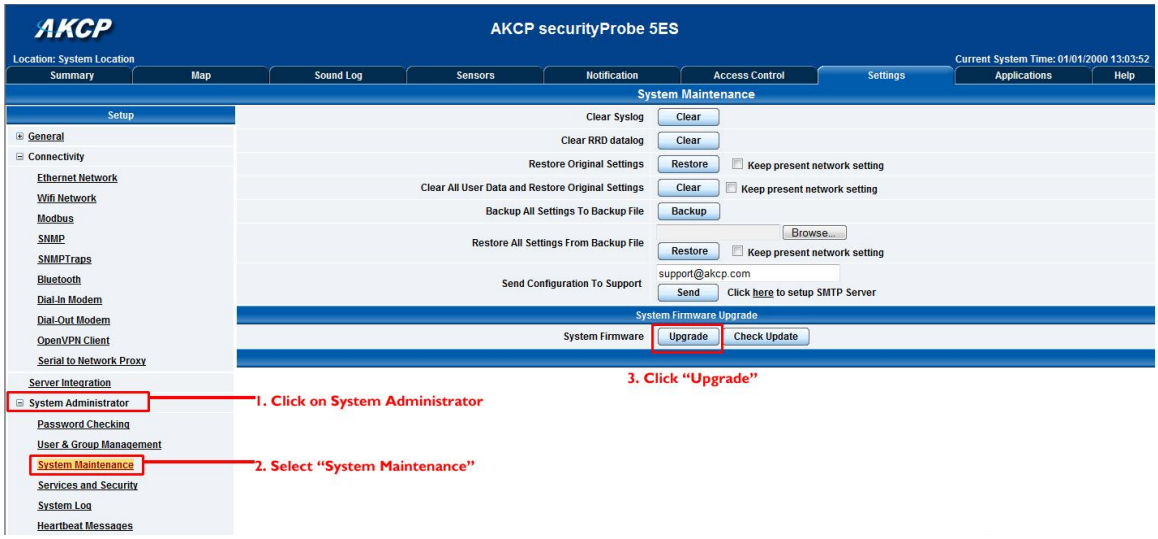
To get to the starting point of this tutorial:

- Log in as administrator
- Click on the settings tab

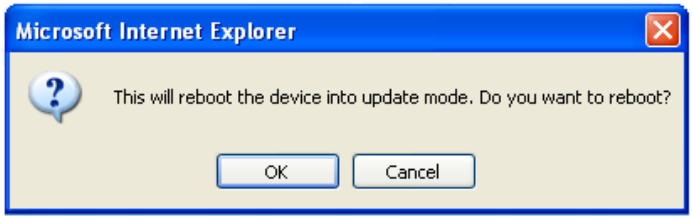
a)



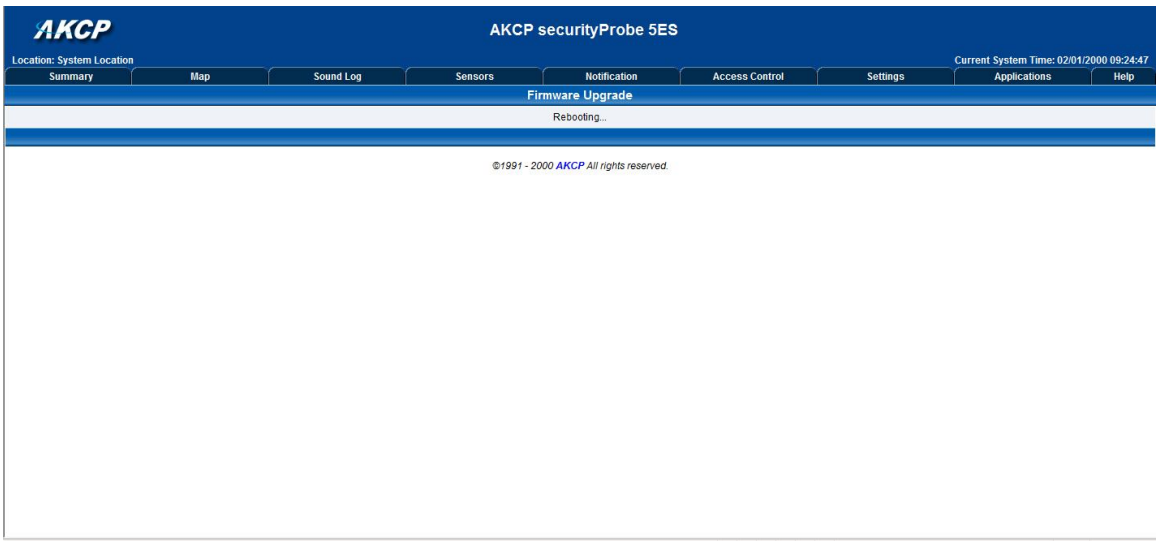
b)



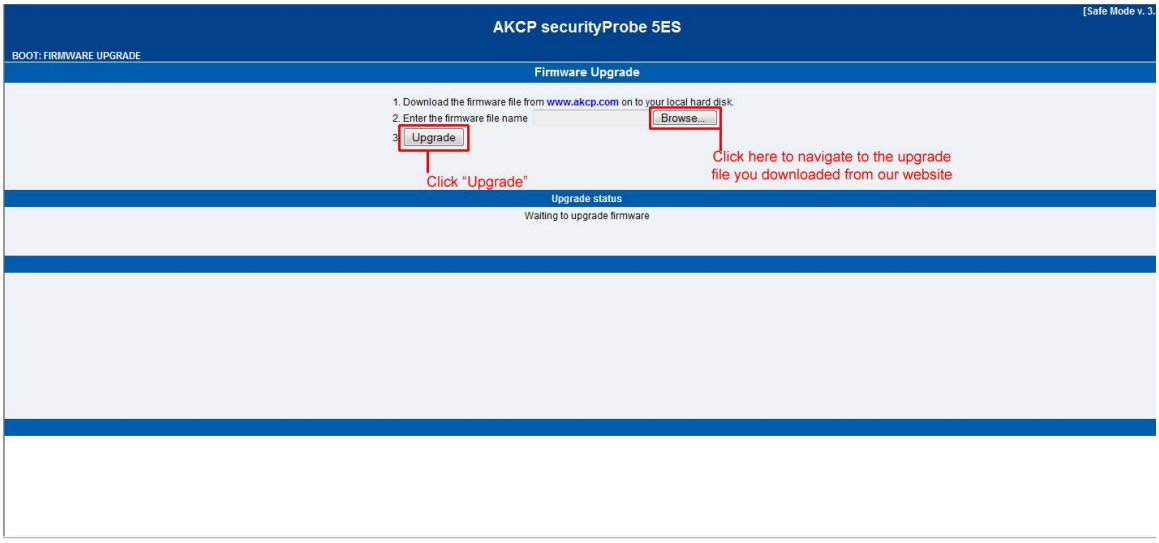
c) You will then be presented with this pop up :-



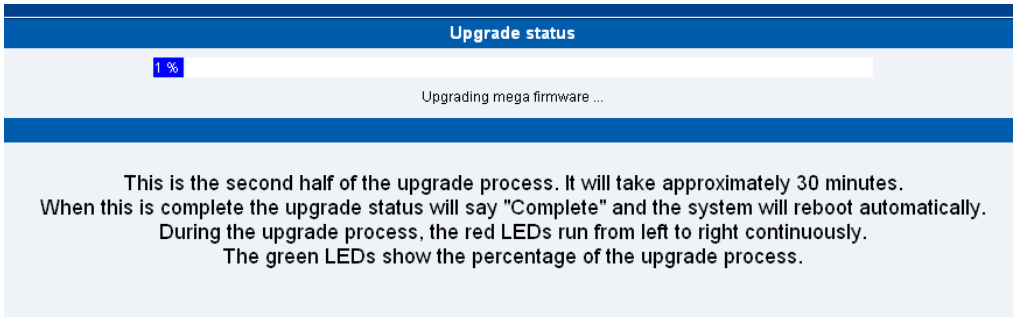
Click OK. The unit will then reboot in safe mode. After reboot you will be redirected to the safe mode web interface. This can take some time, so please be patient. The page will display the following message while rebooting



d) Once the unit has rebooted you will be viewing the following page. Follow these instructions.


[Safe Mode v. 3.
AKCP securityProbe 5ES
BOOT: FIRMWARE UPGRADE
Firmware Upgrade
1. Download the firmware file from www.akcp.com on to your local hard disk.
2. Enter the firmware file name
Browse...
3
Upgrade
Click "Upgrade"
Click here to navigate to the upgrade file you downloaded from our website
Upgrade status
Waiting to upgrade firmware

e) during the process you will see the following messages :-


Upgrade status
1 %
Upgrading mega firmware ...
This is the second half of the upgrade process. It will take approximately 30 minutes.
When this is complete the upgrade status will say "Complete" and the system will reboot automatically.
During the upgrade process, the red LEDs run from left to right continuously.
The green LEDs show the percentage of the upgrade process.

f) The unit will then reboot. The process is complete when the LED's are back to their "normal" status.

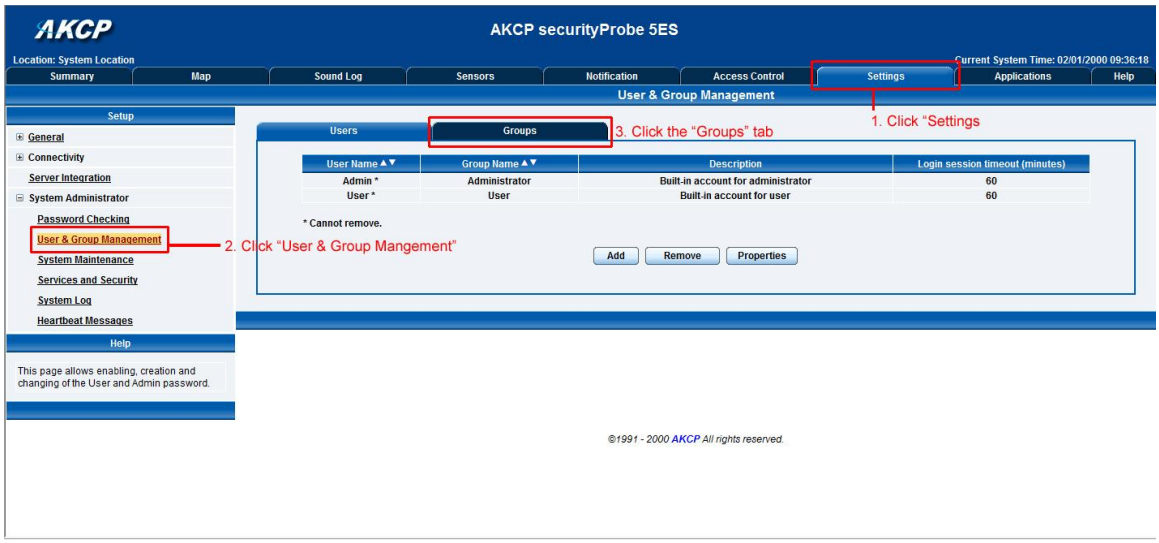
Multi-users and groups setup

Login to the securityProbe or securityProbe 5E with the Administrator password, the default will be “public” if you have not changed this yet.

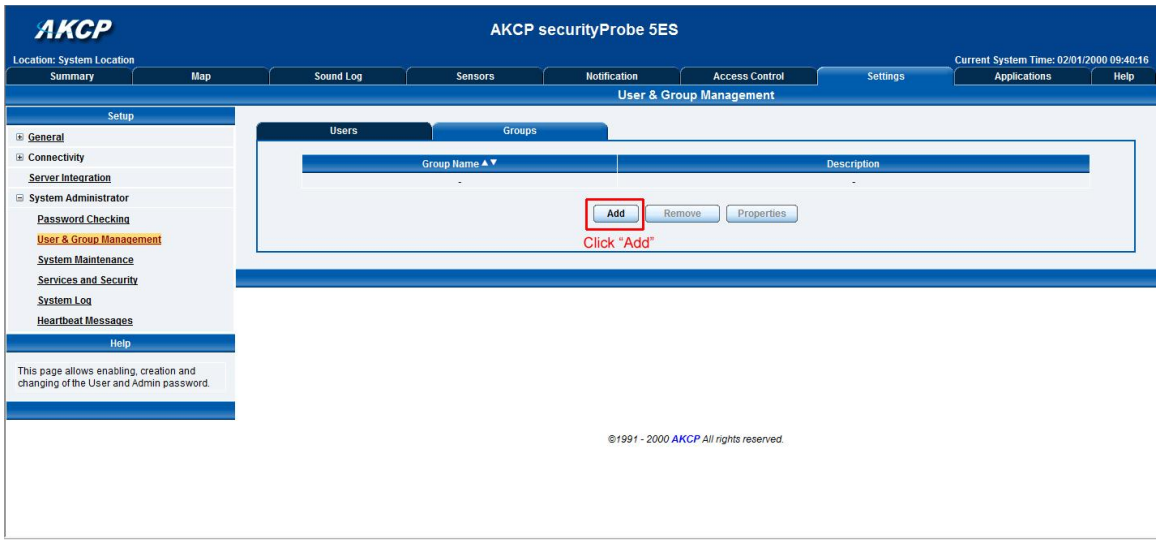
Click on the Settings page, then System Administrator then User & Group Management as shown in the screen shot below:

Note: *The following screen shots may appear small and hard to read. Please use the zoom feature in your PDF reader program to increase the size of the page to better view these screen shots.*

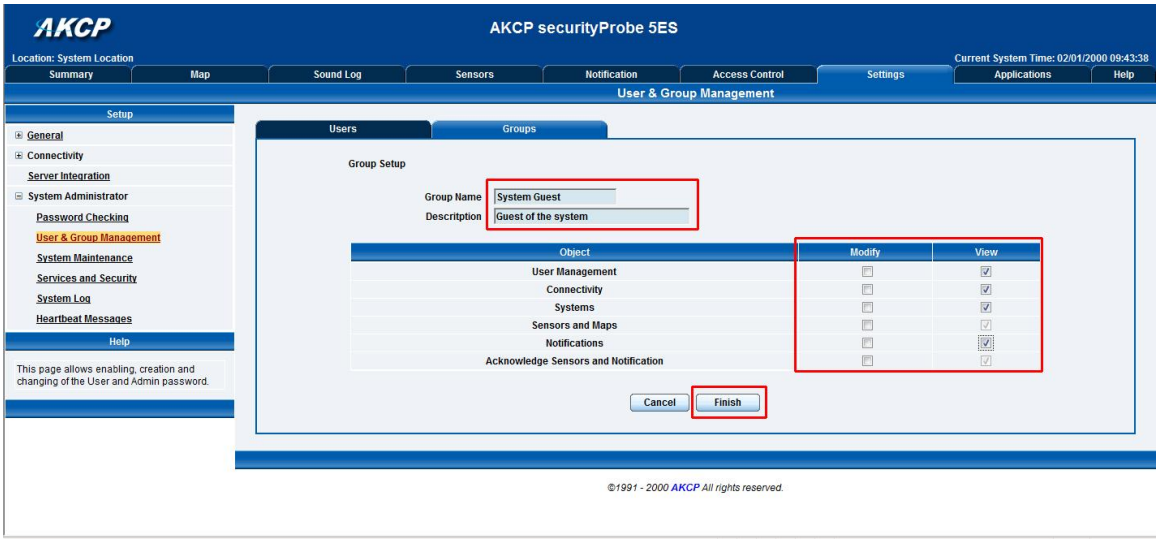
1) Group Setup



This will take you to the Groups page shown below:-

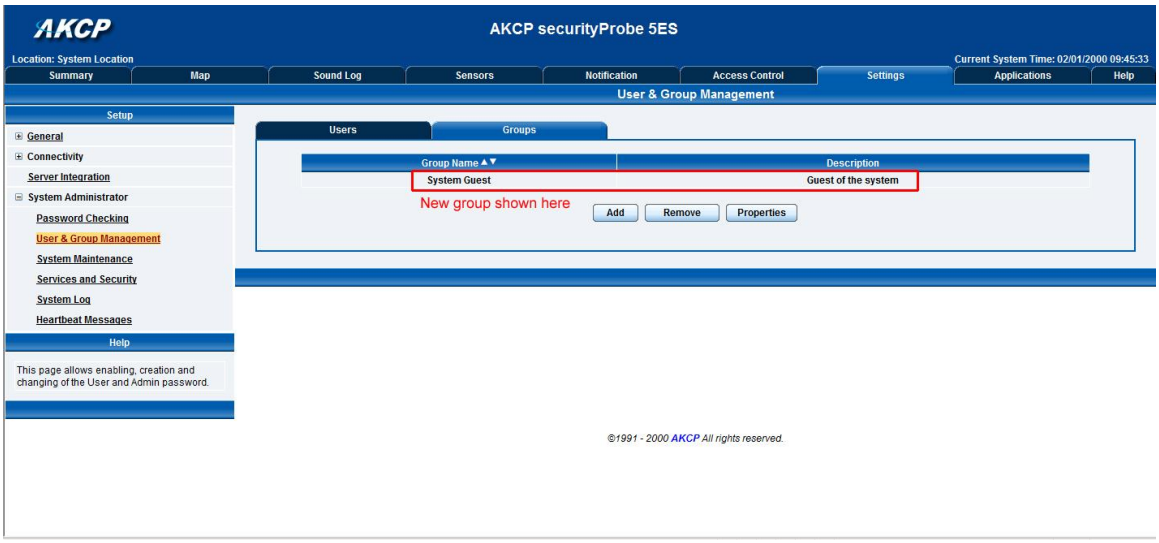


Now click on the “Add” button to add your groups as shown in the screen shot above.

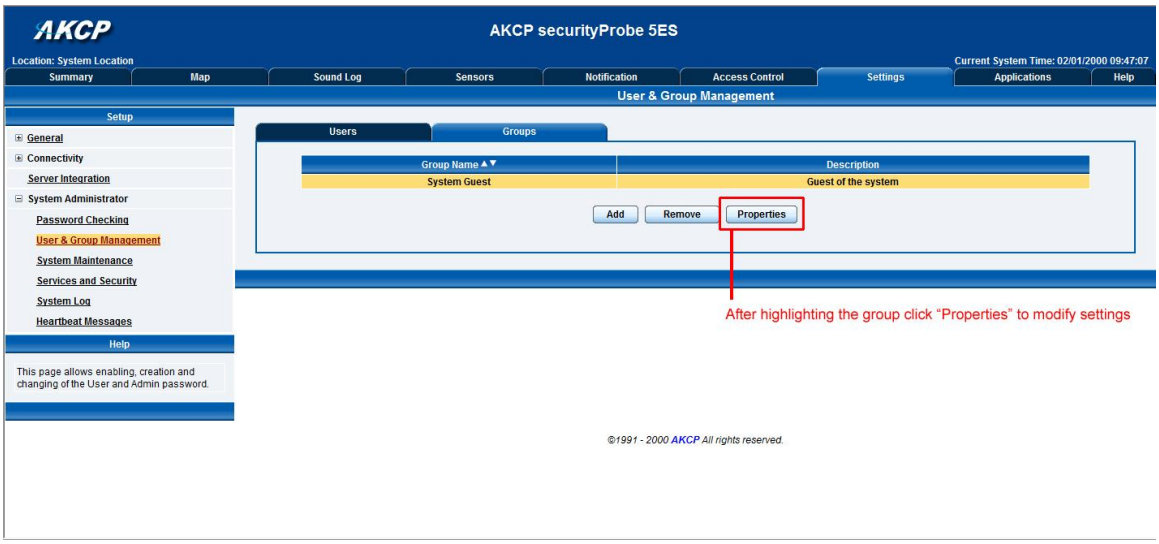


Enter your group name for example we have added a group named “System Guest” and entered our description.

Now check the objects within the web interface that this group will be able to Modify and View. Then click the “Finish” button to save your group.

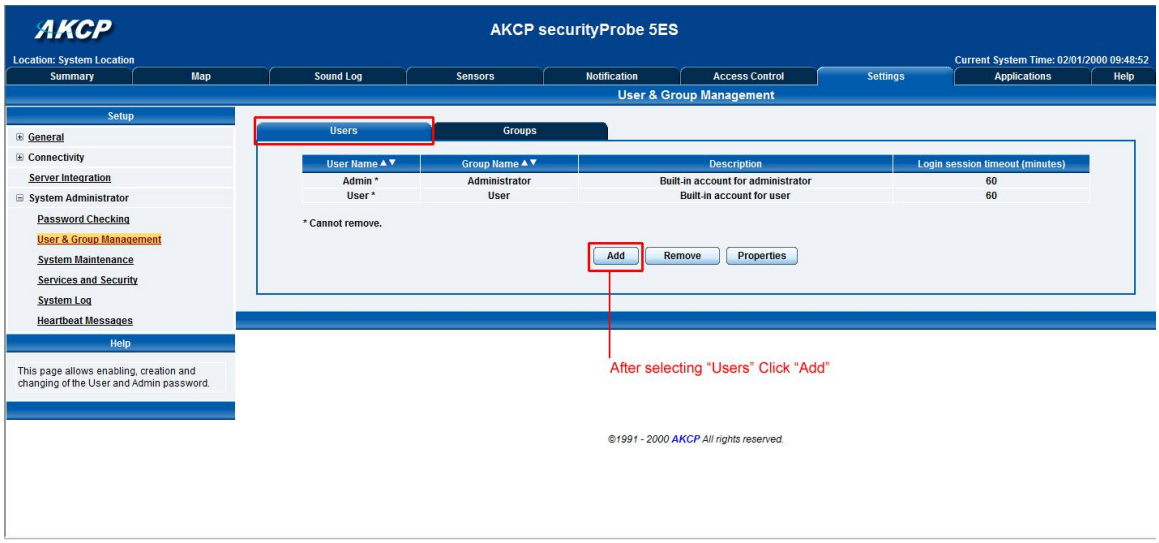


Now you can see the new group “System Guest” has been added to our group list as shown in the screen shot above.

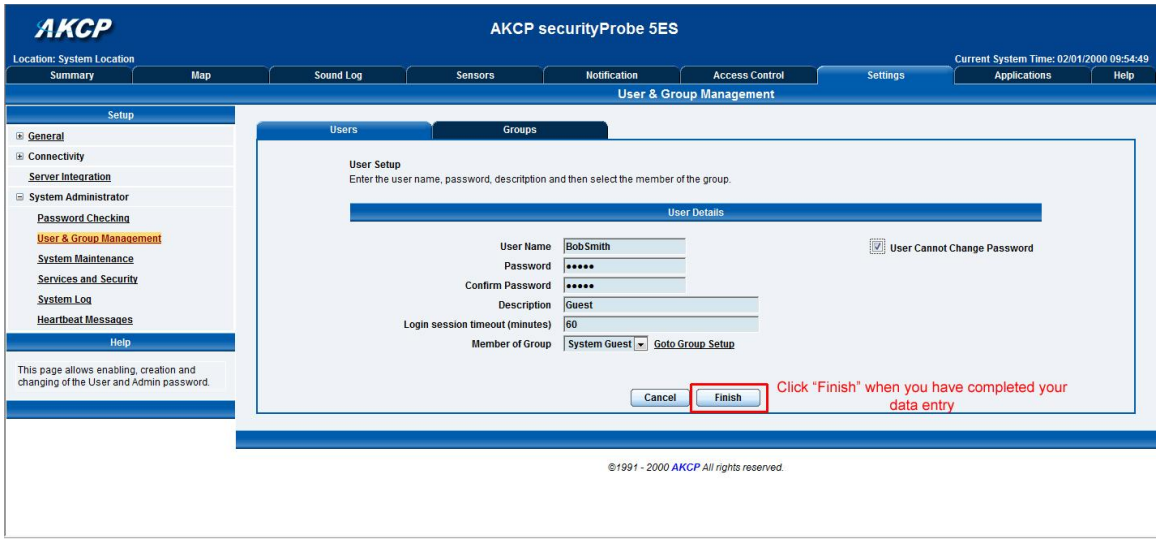


If you wish to modify your group settings, highlight the group you wish to modify by clicking on it, then click on the "Properties" button as shown in the screen shot above.

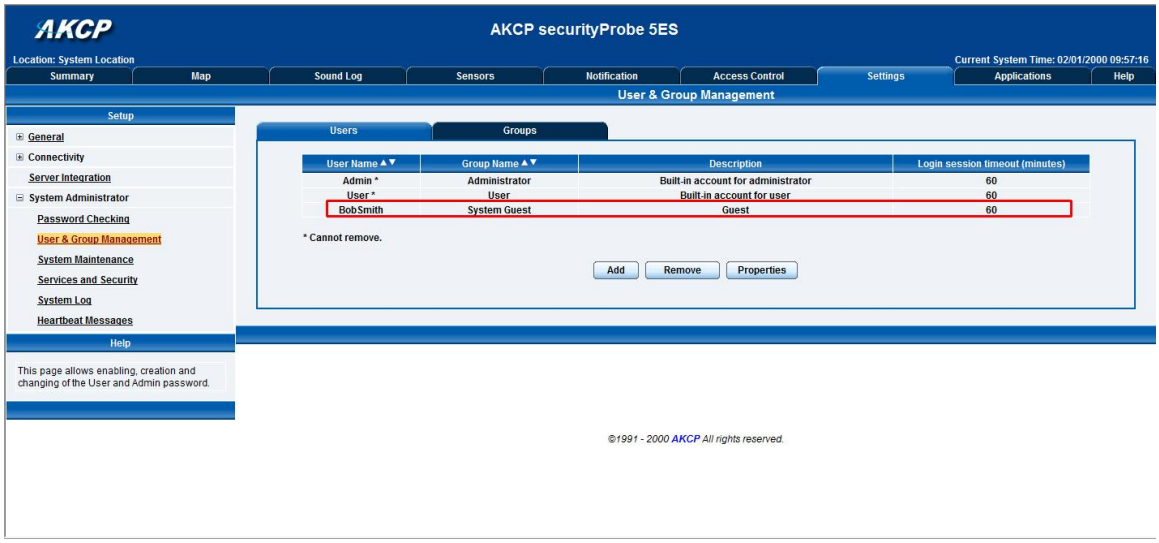
2) User Setup



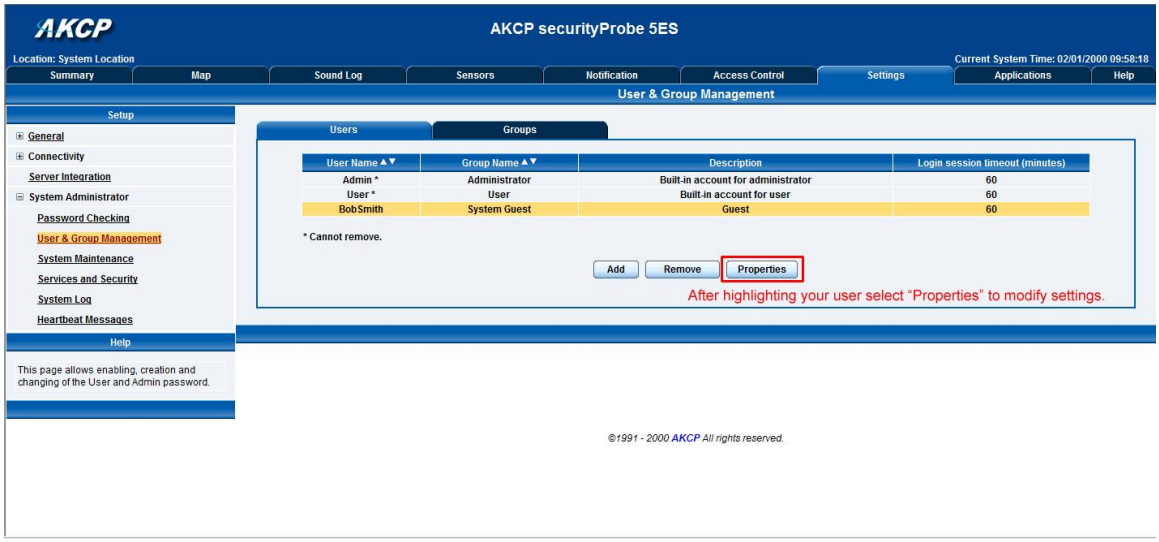
Click on the Users tab then click the "Add" button to add the new Users to your groups as shown above.



Now enter your User details as shown above. In our example we have entered Bob Smith as our Guest into our "System Guest" group. We have also added the option so that this user cannot change his login password. After addition your users for each group click the "Finish" button to save each user.



Now as you can see the new user has been entered into our list of Users.



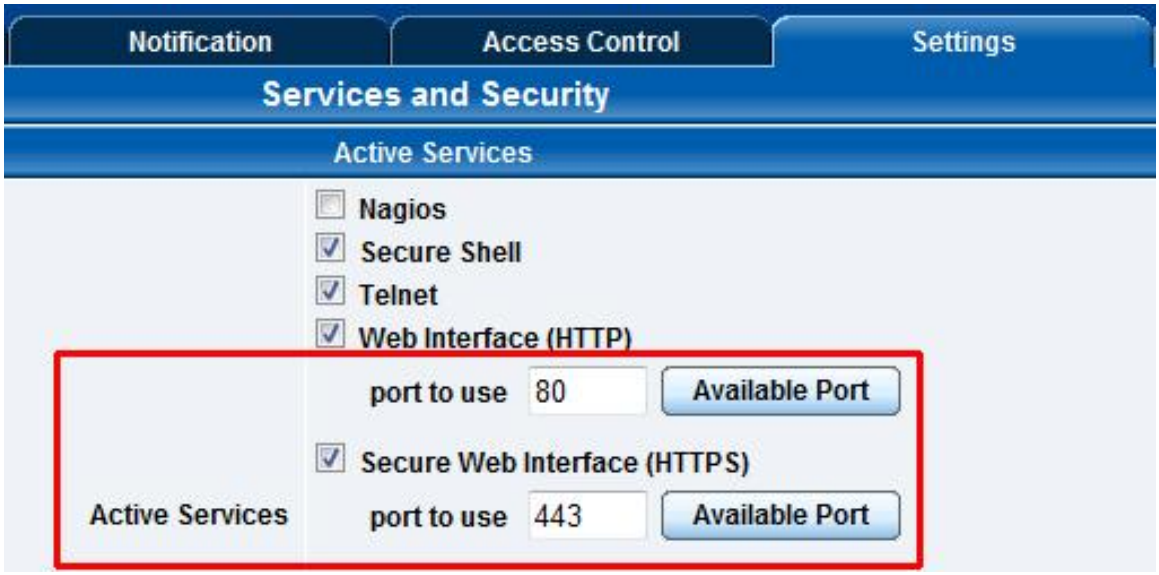
To modify a users setting, first highlight the user by clicking on it, then click the "Properties" button as shown in the screen shot above.

Services and Security

Active Services Application (disabling)

You can enable or disable the Nagios, Video Conferencing, Secure Shell and Telnet applications running on the unit thus making the unit more secure as shown in the screen capture above.

Closing or changing ports disabling HTTP and enabling HTTPS

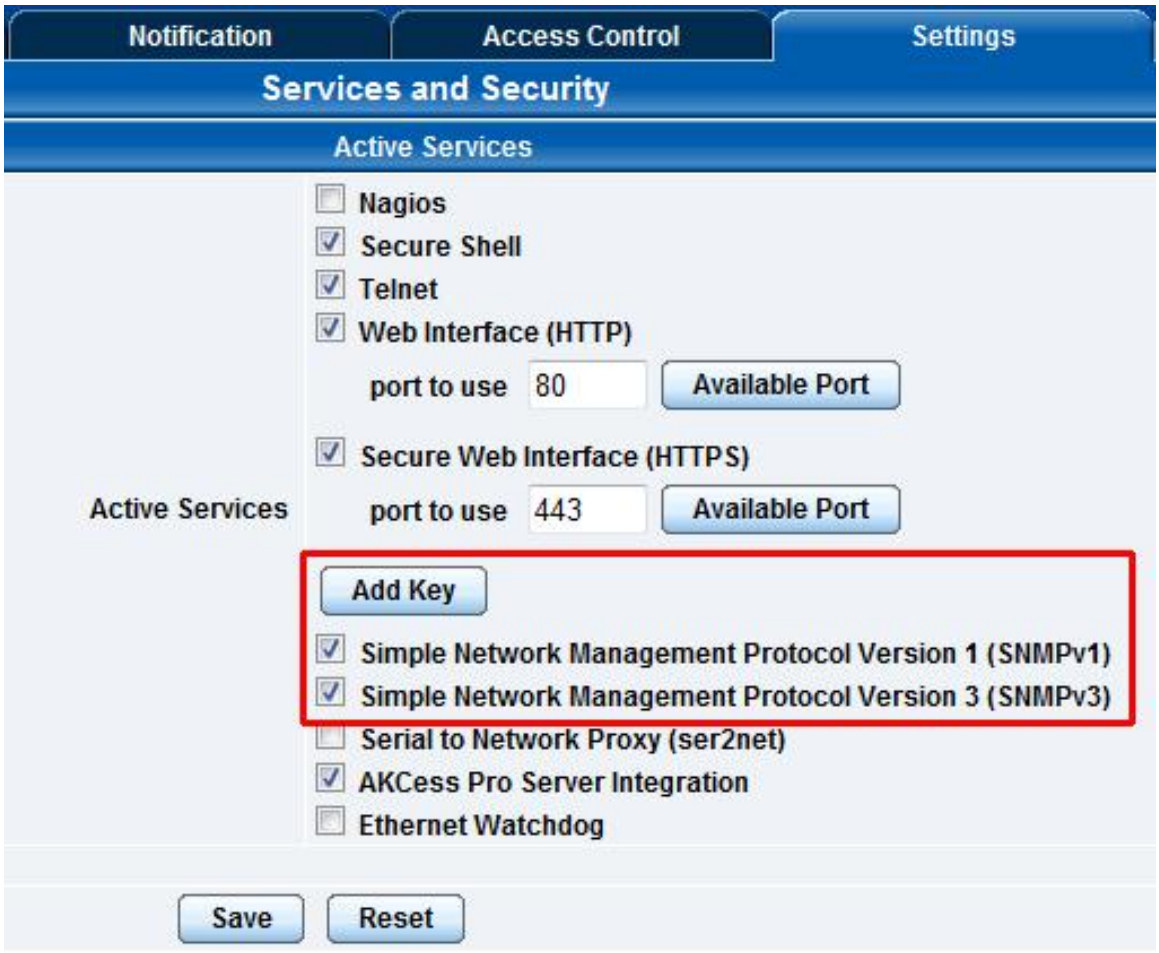


You can also close or change the ports used to access the units web interface, disable HTTP and enable HTTPS only.

The "s" at the conclusion in HTTPS stands for secure. This SSL/TLS connection type is used primarily for high-value sites or ‘pages’, to elevate the potential of being unreadable by anyone but the end-points.

One benefit is the traffic between client and the securityProbe is not cached along the various units as it moves across the 'Net, and so can't be accessed by someone after the connection is terminated.

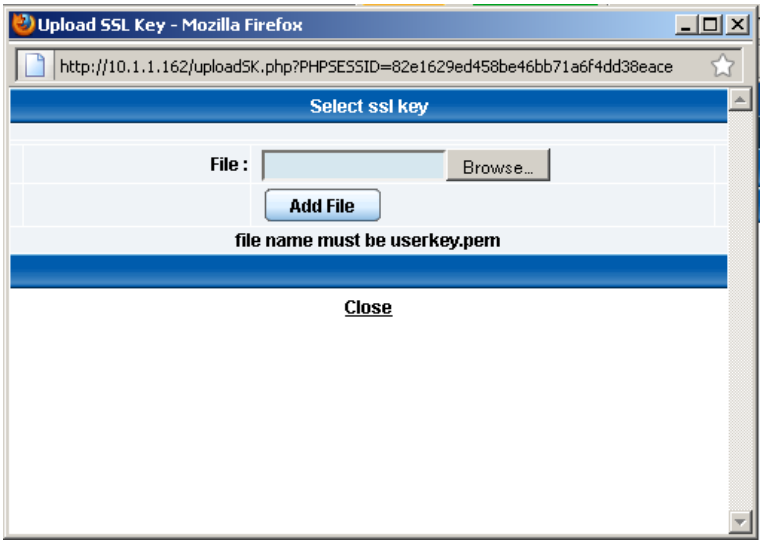
The SNMPv3 SSL security feature



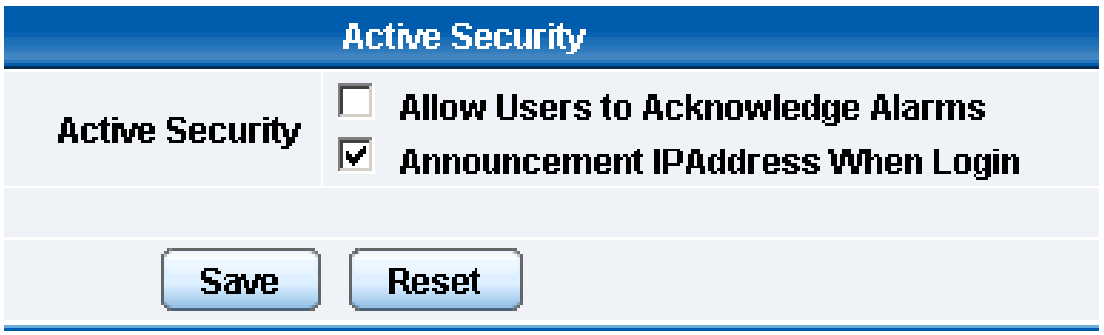
Use the SNMPv3 SSL (Secure Sockets Layer) which is the standard security technology for establishing the encrypted link between the securityProbe in our case and the web browser. This link ensures that all data passed between the securityProbe and the browser remains private and integral.

SNMPv3 provides important security features:

* Confidentiality - Encryption of packets to prevent snooping by an unauthorized source.
* Integrity - Message integrity to ensure that a packet has not been tampered with in transit.
* Authentication - to verify that the message is from a valid source.



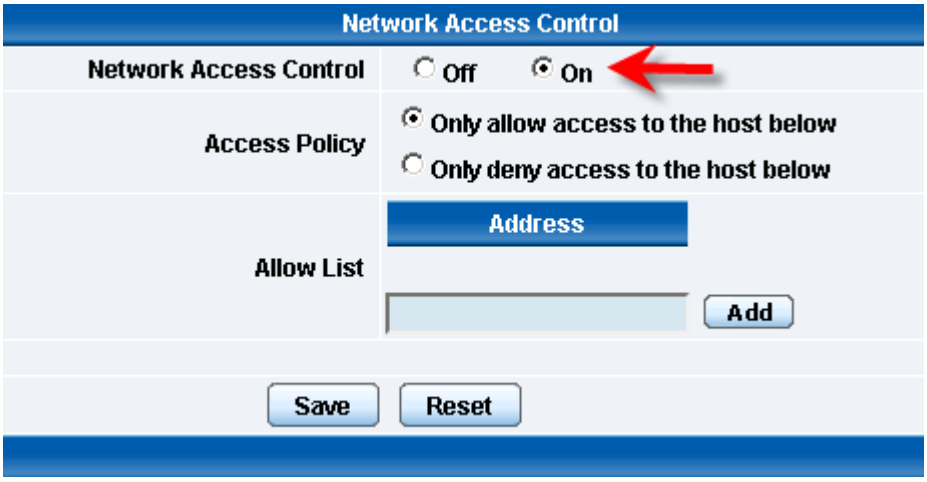
Active Security



In the Active Security section you can allow Users who are logged into the units web interface to "Acknowledge" alarms, which is normally reserved only for the Administrator.

When the unit boots up, it will announce the IP address that it has been configured with. As an added security feature this announcement can be disabled in the above screen shot, so that the IP address remains unknown.

The NAC or Network Access Control security feature

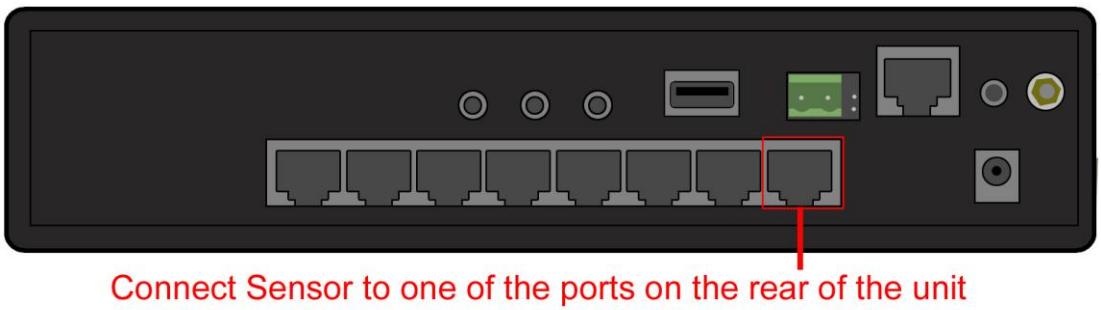


The NAC or Network Access Control feature allows you to restrict access to the web interface for only certain IP addresses, or deny access to the web interface for only certain IP addresses.

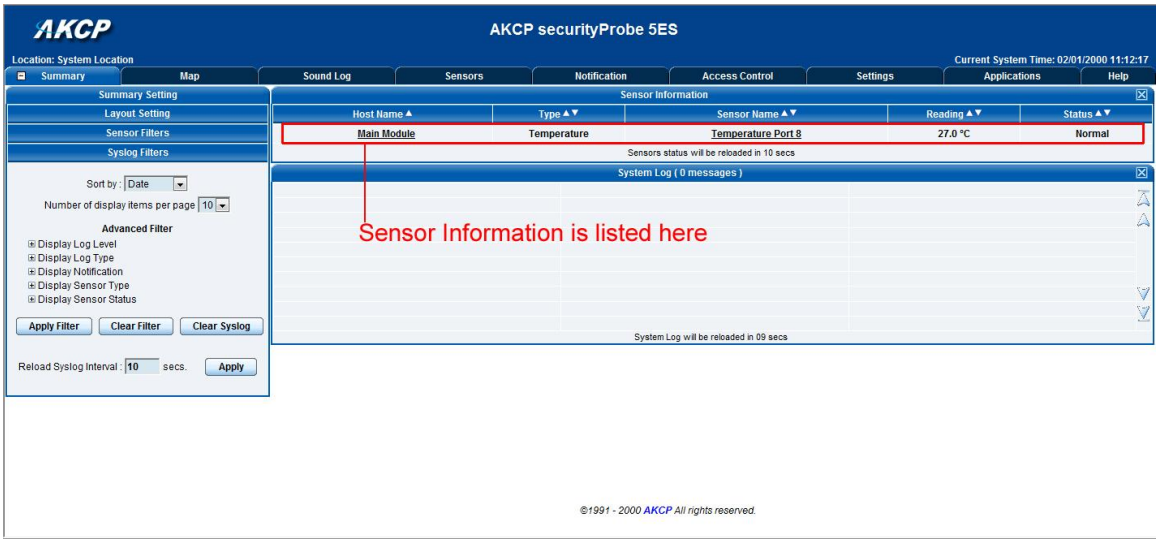
4. Setting up a sensor

In this section we will now go through the basic set up of a sensor. We will focus on the AKCP temperature sensor; however this basic set up process is applicable to all of our sensors. If you require information on specific functions of a particular sensor then please download the manual for that sensor from our website, or locate it on your product CD.

a) Plug the sensor into one of the RJ45 “intelligent sensor ports” on the rear panel of the unit. In this example we will use port 1.



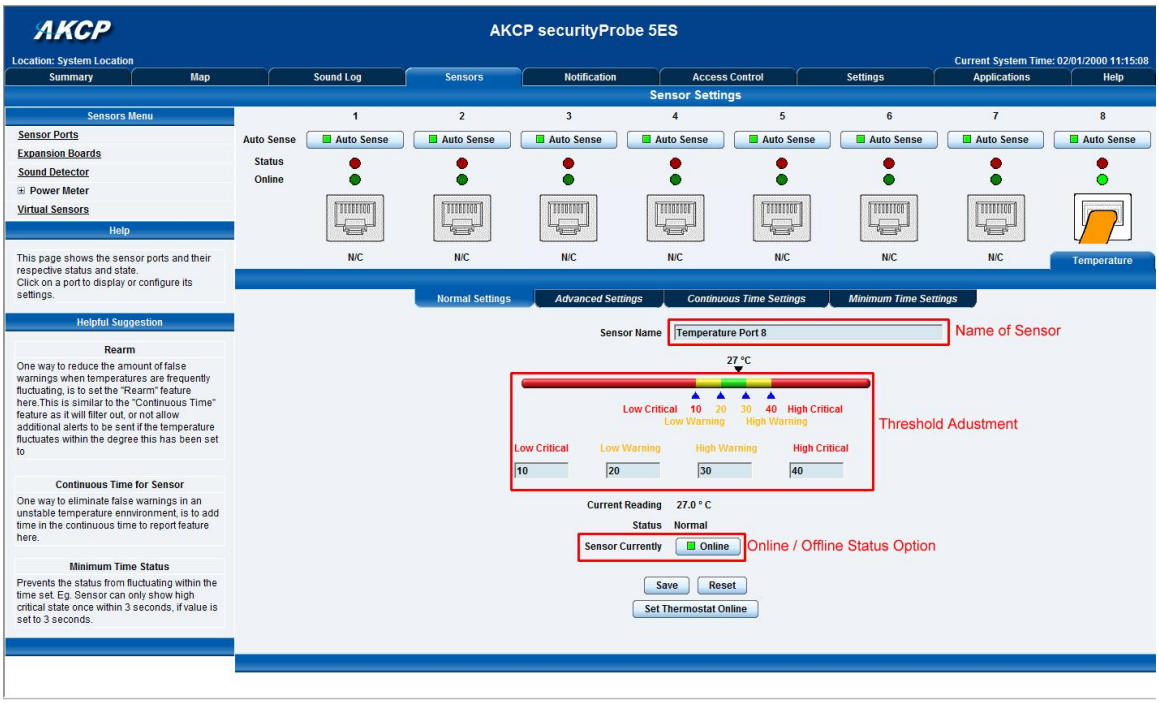
b) Now point your browser to the IP address of the unit (default, 192.168.0.100). Next you need to login as the administrator using your administrator password (default is “public”). You will then be taken to the summary page. This is shown below.



The temperature sensor should be listed, along with its current reading and status. If this is not shown please see refer to the FAQ.

This summary page allows you to quickly see which sensors are connected, their status, view the system log, and also view footage from any connected cameras. We will now go through some of the tools the web based interface provides for getting feedback from the sensors.

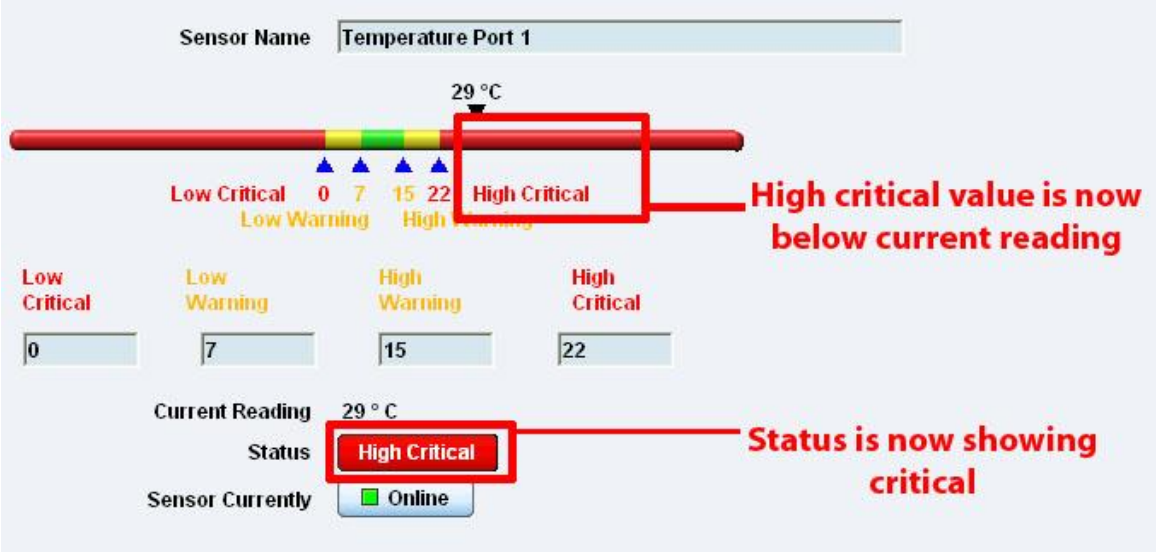
c) Now click on the temperature sensors name (indicated in previous screen shot). This will bring you to the following page, the sensors page:-



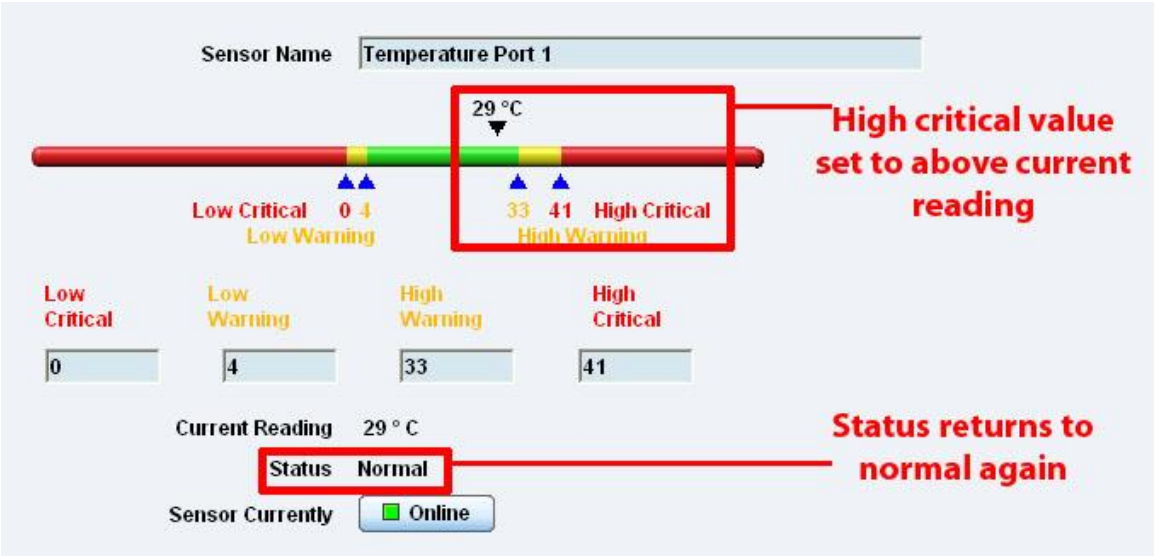
Note: another way of accessing this page is to click on the "sensors" tab at the top of the page.

I) Notification thresholds

From this page you can carry out various operations as indicated above. Also view the current status (normal, low critical, high critical etc). In the screen shot above you can see the sensor is indicating a temperature of 29 degrees F, and a status of Normal. If you click on the blue marker arrow indicated above by the “Set the required threshold” label you can drag this marker to re-configure the thresholds. After dragging the marker click “save” In the next screen shot you can see that this marker has been moved to make a new threshold, and along with it the sensor status has changed.

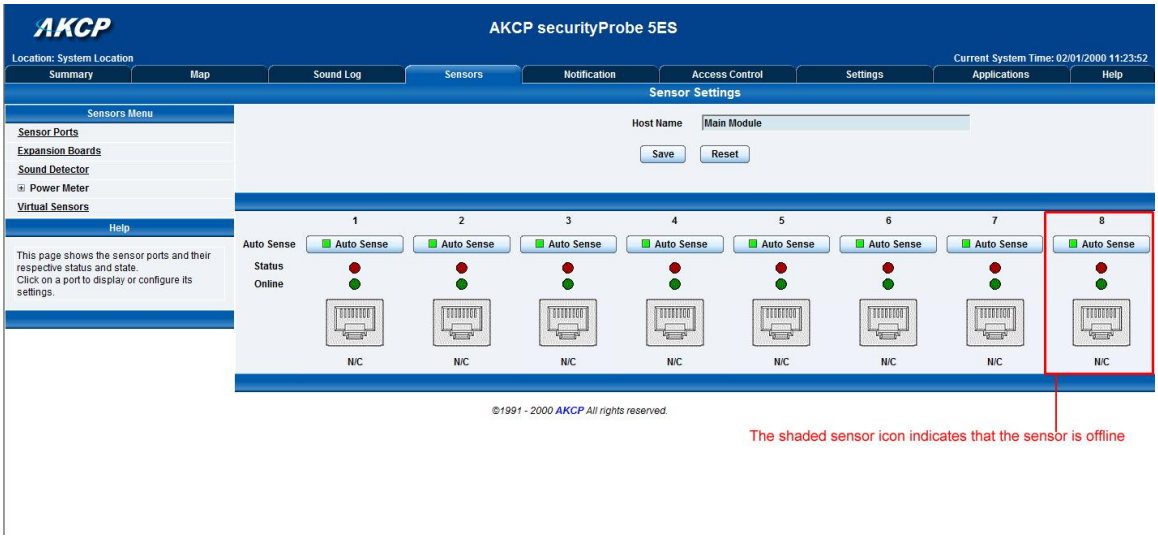


If the marker is then dragged back to above the current reading temperature you should see the status returns to a normal condition again. *Note: If this does not happen straight away press your browsers refresh button.*

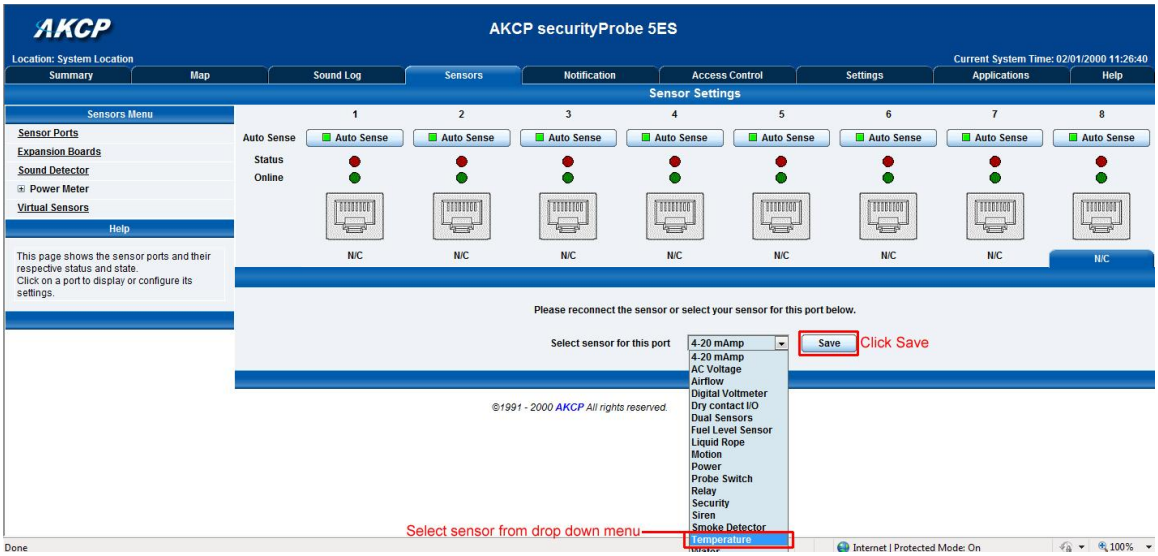


If you wish to take a sensor offline then click on the “sensor currently” button. This will offline the sensor without the need for you to physically unplug it.

Now your page will look something like below after taking the sensor offline.

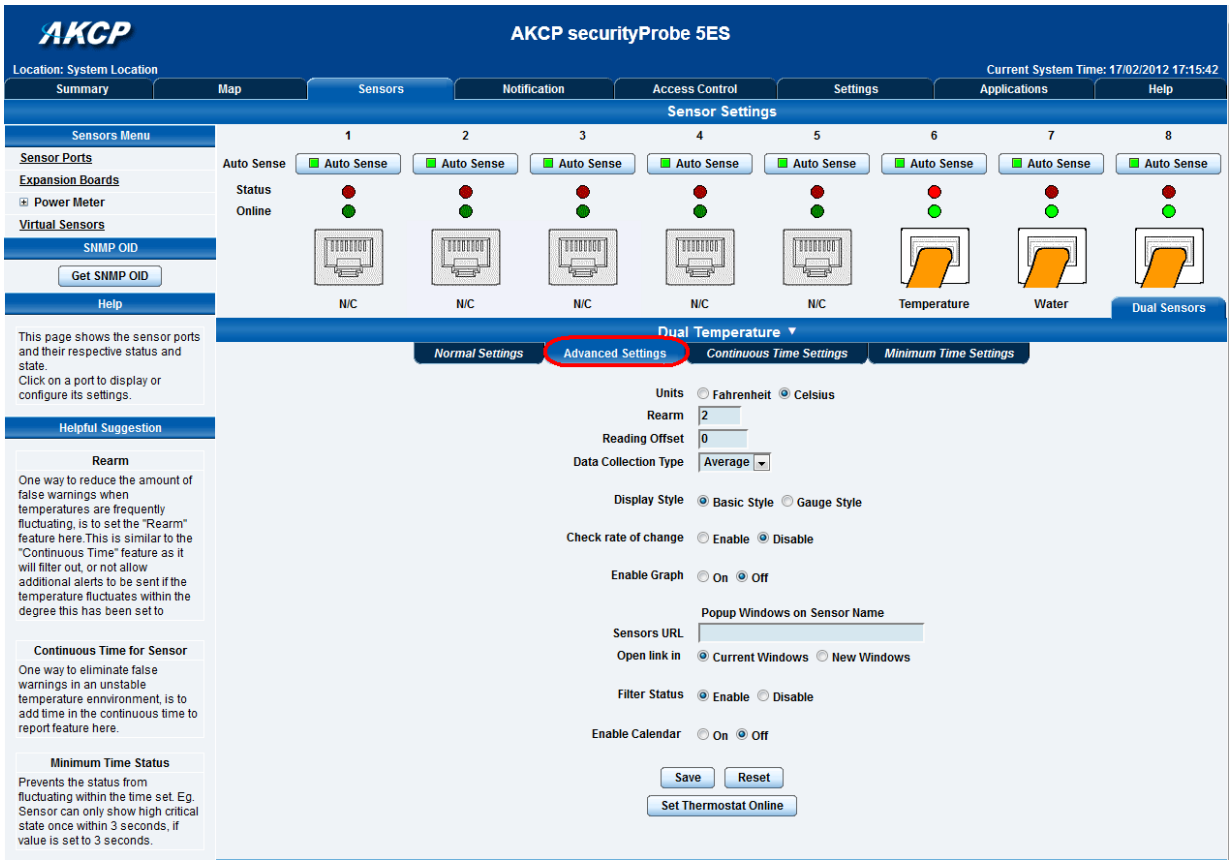


To bring a sensor back online, select your sensor type from the drop down menu and click “save”.

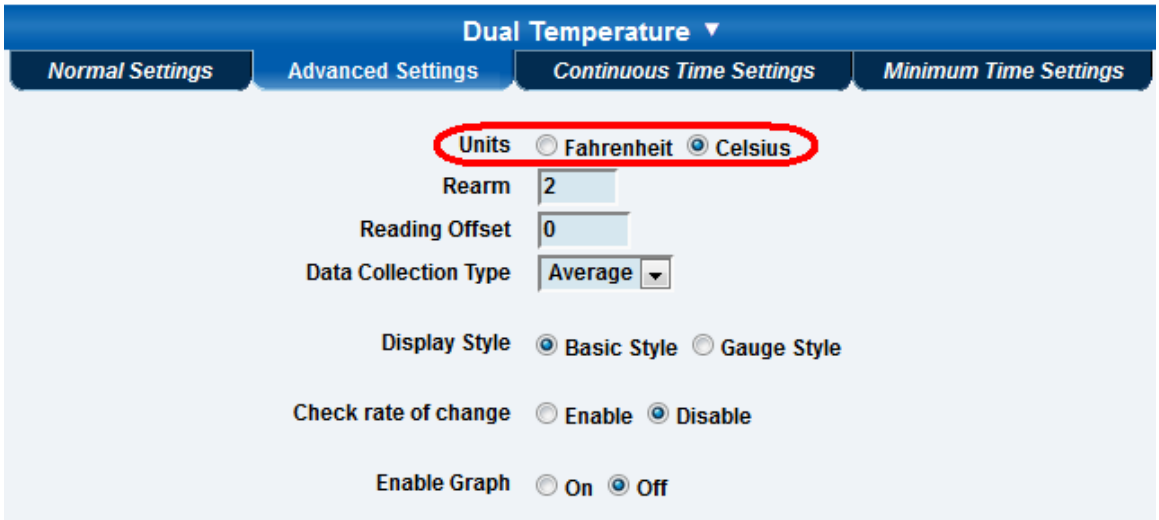


ii) Advanced sensor settings

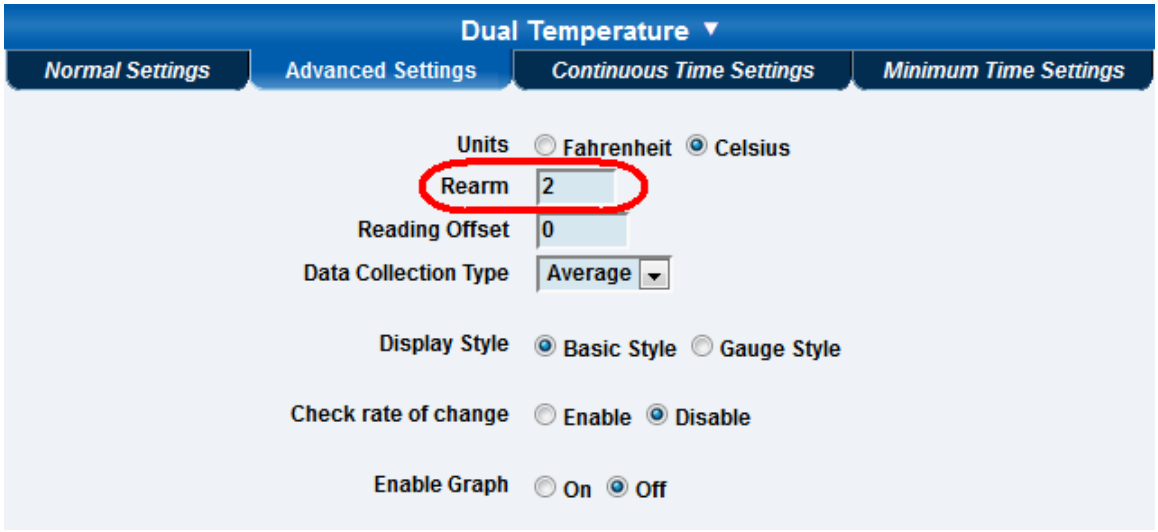
By clicking on the Advanced Settings tab you will then see the advanced settings for the sensor.



Advanced mode functions



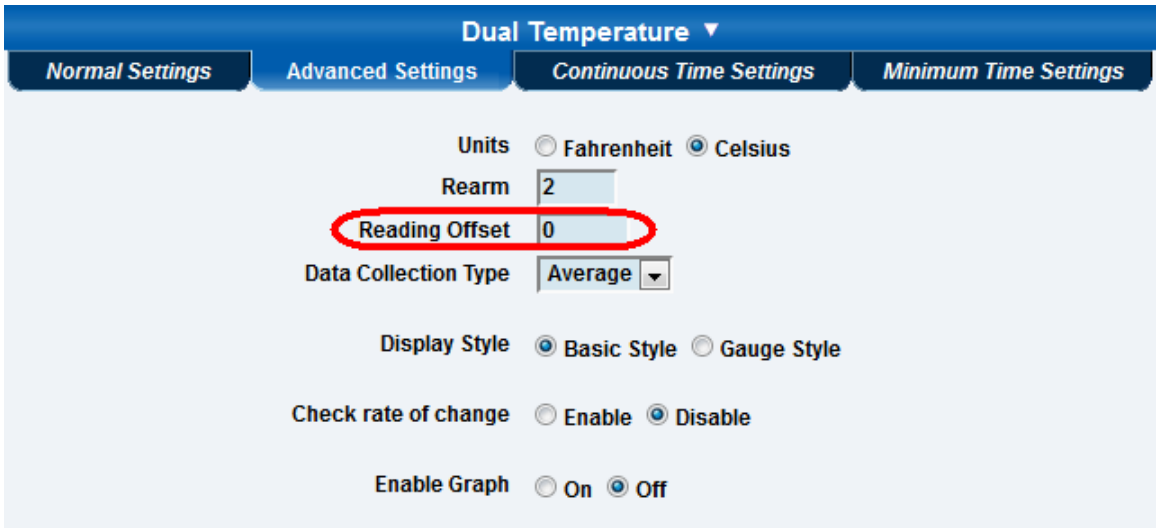
Units: changes units from C to F or vice versa



Rearm:

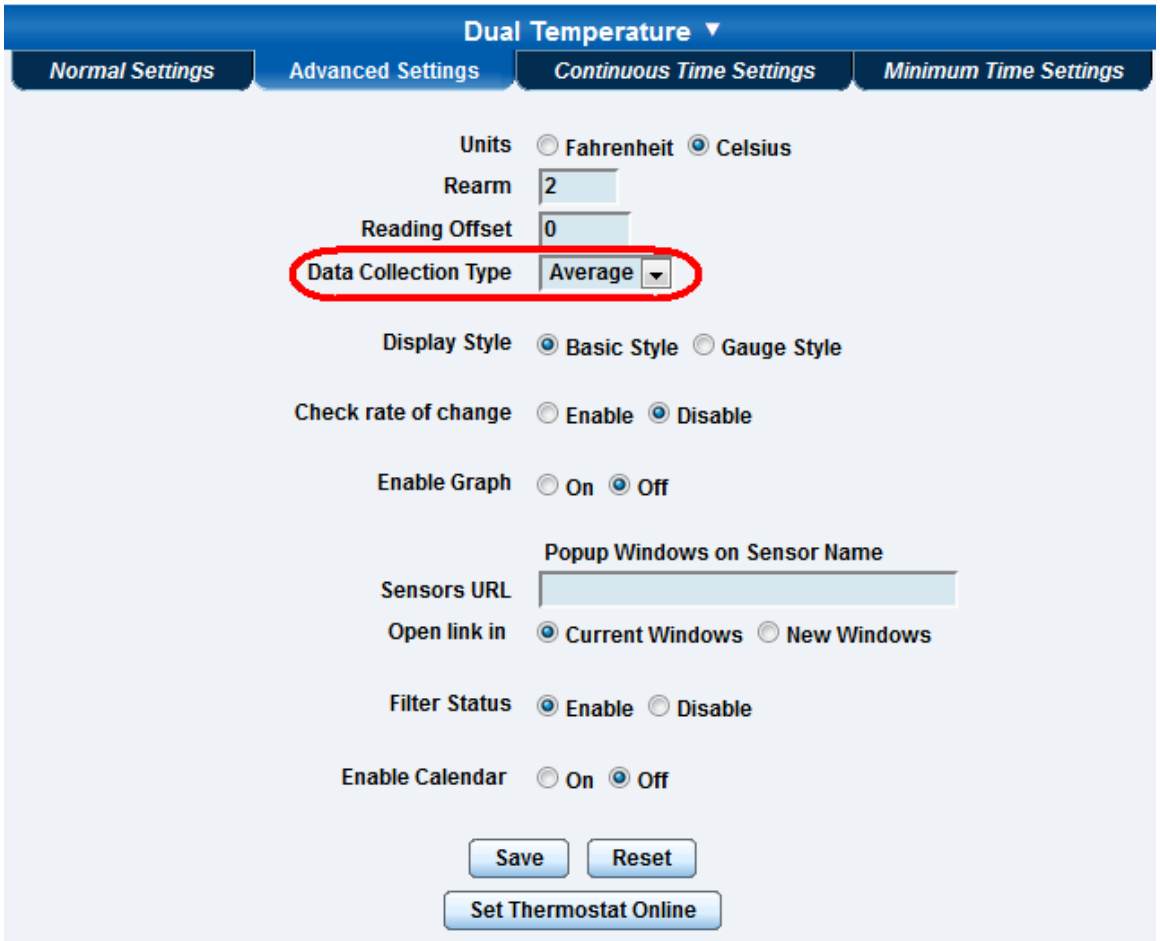
The Rearm parameter is useful for sensors whose values can vary such as the temperature and humidity sensors.

It is used to prevent the sensor from flickering between two states. For example if the **Warning High** threshold for the temperature sensor is set to 80 degrees and the sensor were to vary between 79 and 80 you could be faced with a very large number of emails, traps, and events logged. The Rearm parameter prevents this by forcing the temperature to drop by the Rearm value before changing the state back to normal. In this example, if Rearm is set to 2 then the sensor would have to drop from 80 down to 77 before the status would change from **Warning High** back to normal.



Reading offset:

A calibration tool. If you wish to calibrate the temperature sensor, for example, you could enter an offset value of 5. This would mean if the sensor reads 20 degrees then it would record as 25 degrees. This figure can also be a minus figure (e.g. -5 would show 15 degrees instead of 20)



Data Collection Type:

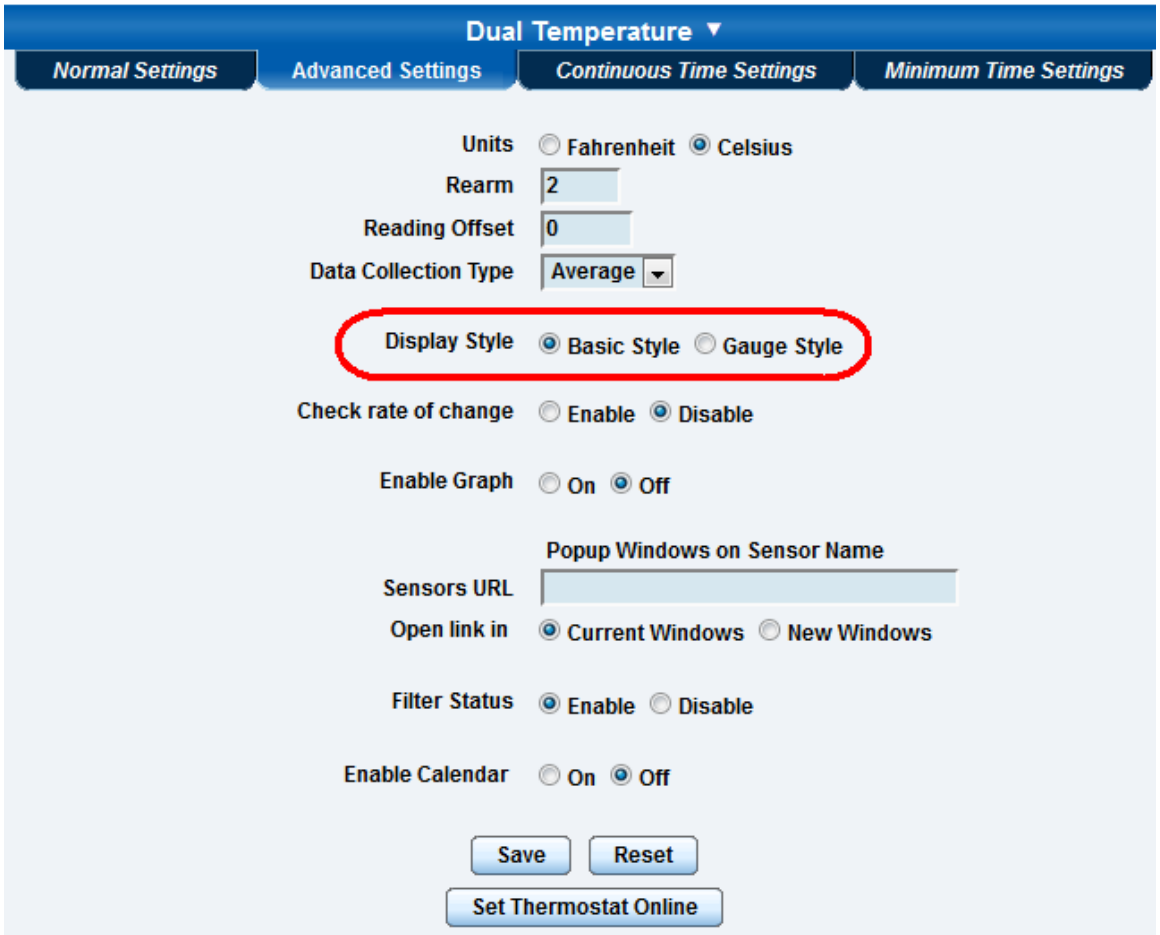
This refers to the data collection from the sensor and how the data is then displayed on the graphs.

There are three options for the collection of data. Average, Highest and Lowest. The default setting is “Average”.

When the data collection type is set to “Average” the output graphs for the daily, monthly, and yearly all have the same size on the screen. For the daily graph, each data point on the graph is one data point collected from the sensor. But for the monthly and yearly graph, in order to display more data into the same size as the daily graph, some consolidation on the data is needed. One data point on the monthly and yearly graph is an average of the sensor data in a range.

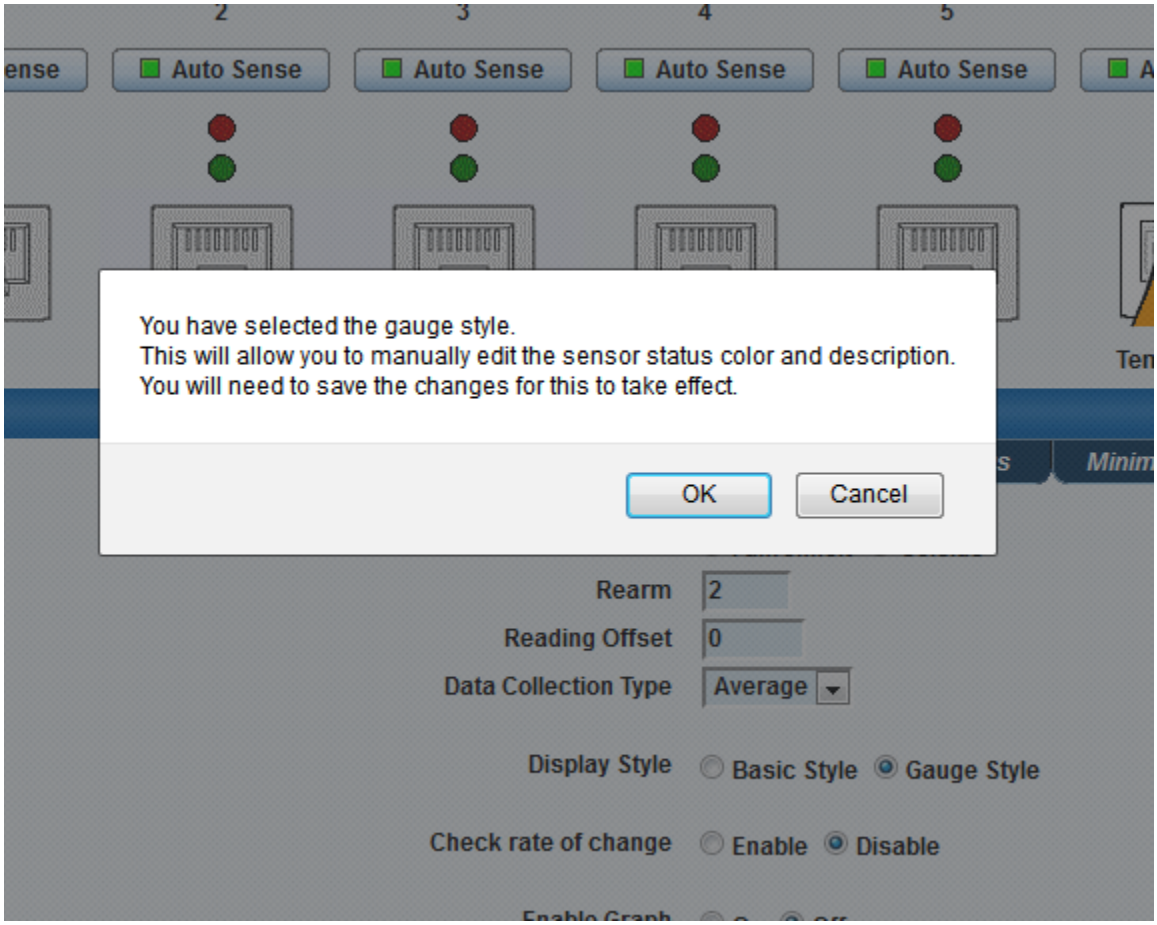
The maximum and minimum values showing on the monthly and yearly graphs are the value of this consolidated data and not the raw data over that period of that time.

The When the Data Collection Type is set to the Highest setting then you will get the graphing output displaying the sensors highest reading. This is the same for the Lowest setting.

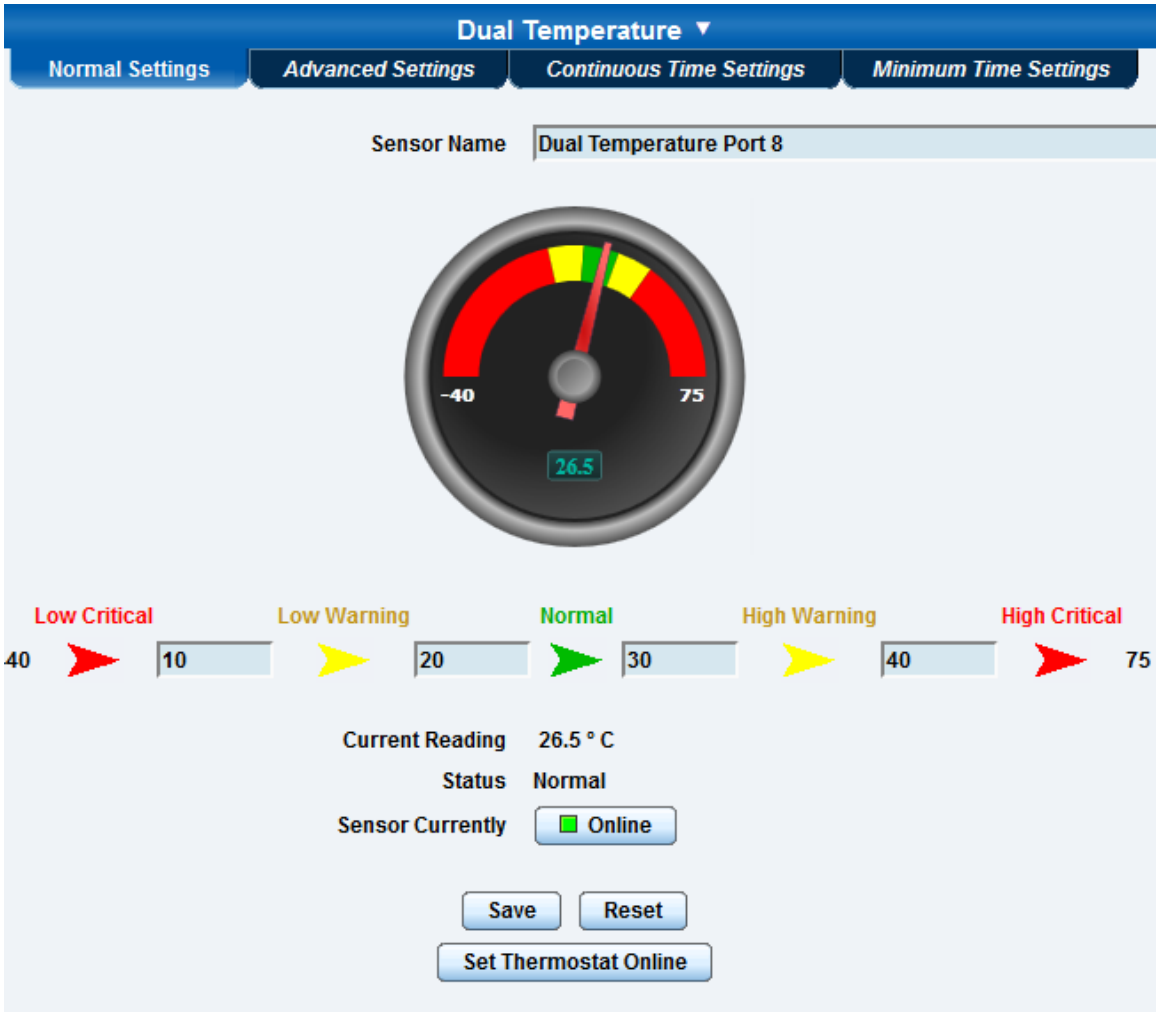


Display Style

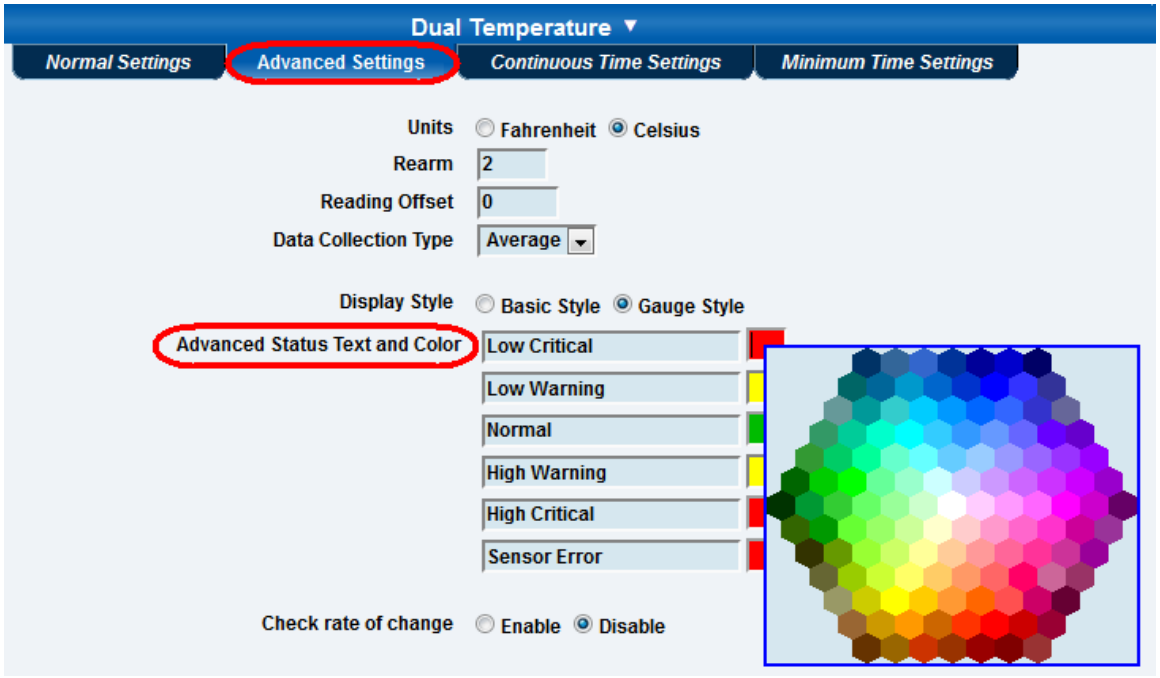
You can keep the sensors “Display Style” in the web interface as the Basic Style which will be the slide bar type or you can change it to the “Gauge Style” type.



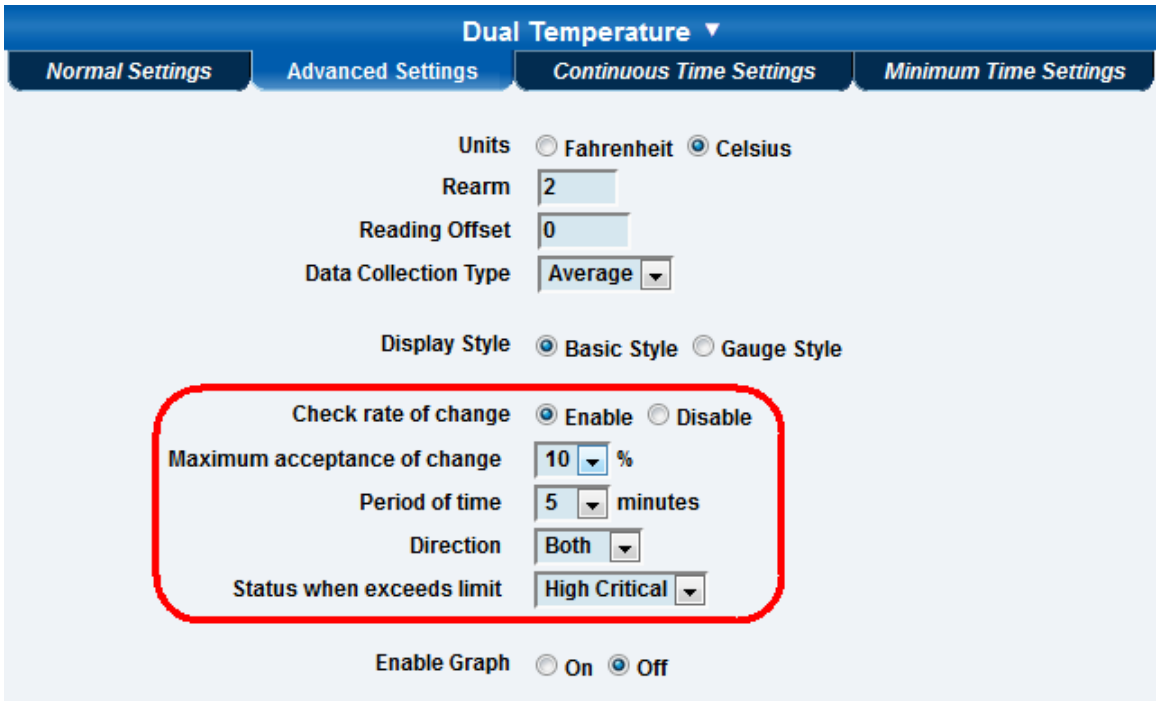
When switching to the Gauge Style type you will first be prompted with the pop up dialog box show above.



You will now see the new display where you can set the sensors threshold levels as shown above.



After clicking on the "Advanced Settings" tab, you can change the text and colors for each sensor threshold as shown in the screen shot above.



Check rate of change

When enabling the “check rate of change” feature for this sensor, you can set the rate in a percentage from 1% to 50% over a period of time from 1 to 20 minutes. You can set the direction to Up, Down, or Both and you can set the Status when the limit is exceeded to show either High Critical or Low Critical.

Now you can tie this sensor alert to any notification. This feature is ideal for our Ultrasonic Fuel Level Sensor to prevent theft of fuel or be alerted to leaks in storage tanks for example.

Continuous Time Settings & Minimum Time Settings Tabs

The following advanced functions are for setting the time frame in which the system should delay a notification being triggered when a sensor gives a reading that exceeds the thresholds (high warning, normal, etc).

Continuous Time to Report High Critical: This helps to eliminate unnecessary messages during minor fluctuations. You can set the amount of time to delay a notification of a status change from high warning to high critical. Enter the time in seconds and press the “Save” button. The amount of time that can be entered is between 0 and 65535 seconds which equals approximately 18 hours

Continuous Time to Report High Warning: As above but delays notification for “High Warning”

Continuous Time to Report for Normal: As above but delays notification for return to “Normal” state

Continuous Time to Report for Low Warning: As above, but delays notification for “Low Warning” state.

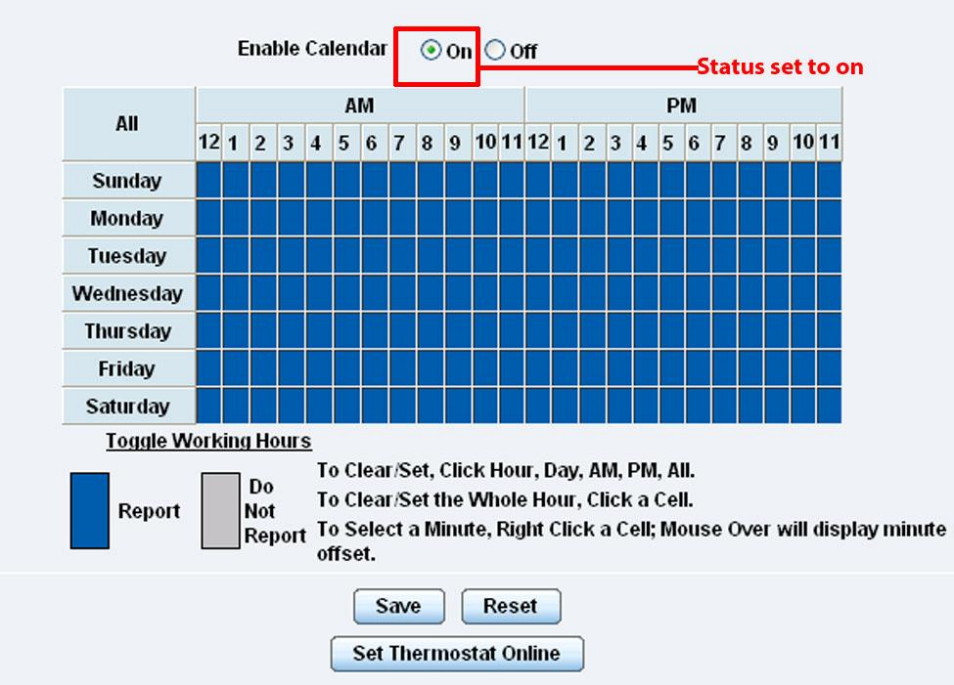
Continuous Time to Report for Low Critical: As above but delays notification for “Low Critical” state.

Continuous Time to Report for Sensor Error: As above, but delays notification being sent for sensor going into an error state.

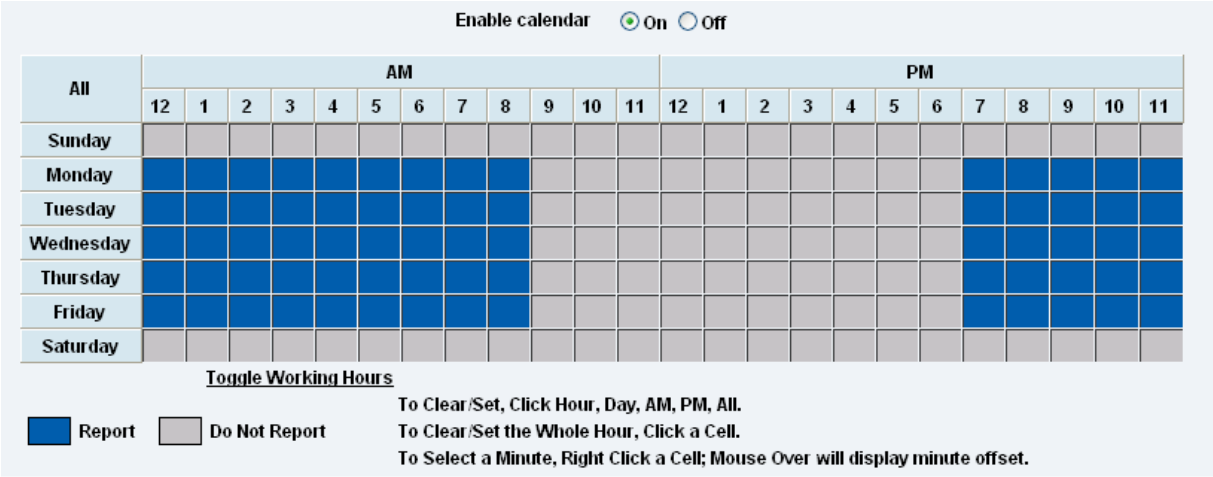
Example: An airflow sensor or humidity sensor may have temporary drops in readings which are normal operating characteristics; a logical time limit is set to show abnormal conditions.

Minimum Time Status Prevents the status from fluctuating within the time set. For example, a sensor can only show high critical state once within 3 seconds, if value is set to 3 seconds.

Enable Calendar: If you select this option then the following will be displayed:-



In our example we wish to monitor an office building between the hours of 7 PM – 9 AM Monday – Friday only. You can see in this picture we have selected the "Do Not Report" option for the hours in which we do not wish to receive any notifications or have any events logged. You change the status of that time frame (Report / Do Not Report) by simply clicking on the square. This will change it from blue to grey, a second click will return it to blue.



1. Using internal Mic as a sound detection sensor

The internal microphone (or an external plugged into the line in jack) can be used as a sound detector.

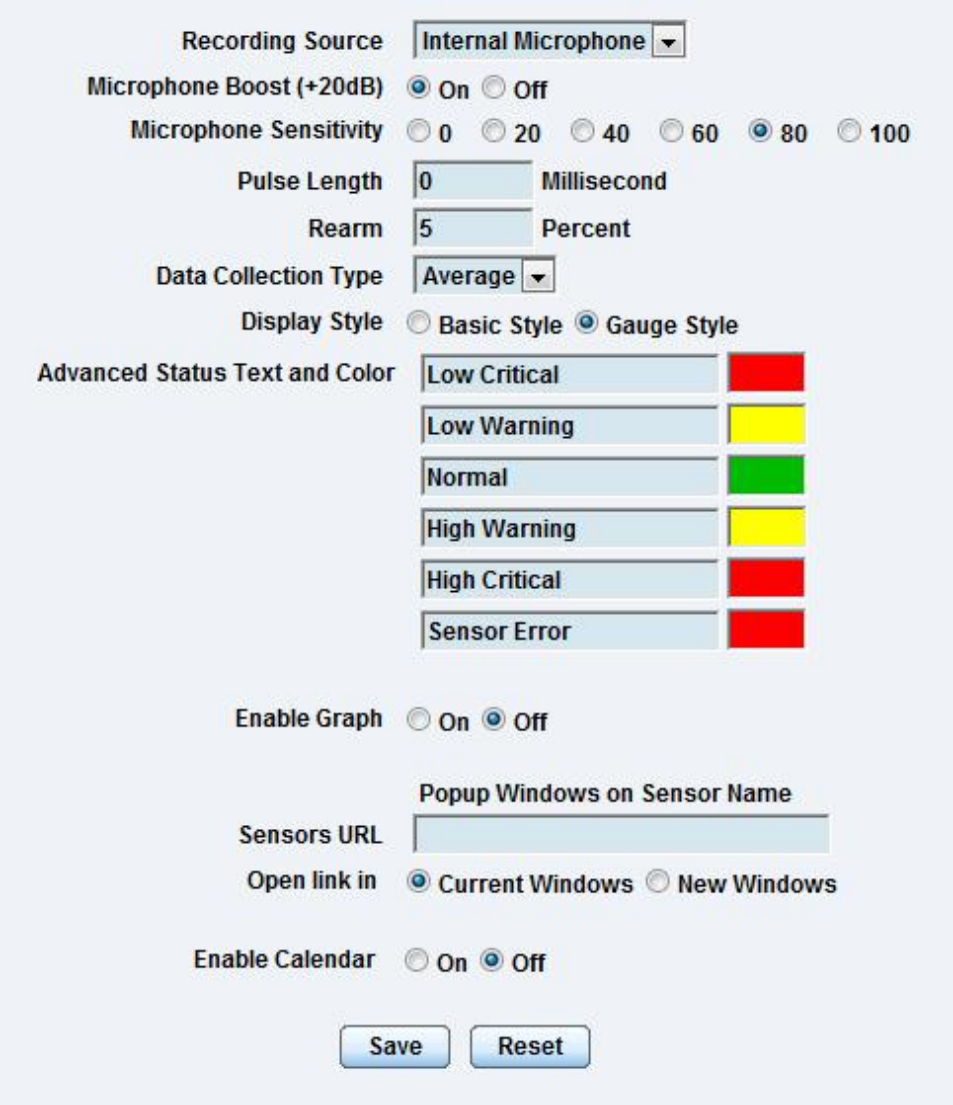
This tutorial provides you the information needed to setup the internal Mic as a sound detection sensor.

To get to the starting point of this tutorial:

- Log into the web based interface
- Click on the sensors tab

a) First navigate to the correct page in the web interface.

b) When you have clicked on the advanced settings tab you will see the advanced options presented to you.



Now lets look at what each of these settings does:-

Recording Source: Here you can choose either internal or external microphone.

Microphone boost (+20dB): Boosts the microphone by 20 dB

Microphone Sensitivity: The level of sensitivity that can be set. For example, if you set the level to 80, then the microphone will detect more sound if the level was set a 20.

Pulse Length: This defines the minimum duration of a sound to trigger an alert notification.

Rearm: The Rearm parameter is used to prevent the sensor from flickering between two states. For example if the **Warning High** threshold for the sound sensor is set to 80 and the sensor was to vary between 79 and 80, a very large number of emails, traps, and events would be logged. The Rearm parameter prevents this by forcing the signal level to drop by the Rearm value before changing the state back to normal. In this example, if Rearm is set to 2 then the sensor would have to drop from 80 down to 77 before the status would change from **Warning High** back to normal.

Data Collection Type: There are 3 settings for this parameter: lowest, highest, and average. Data will be collected for the lowest, highest, or average sound reading accordingly.

Display Style: Here you can choose the gauge style, or the classic bar style gauge.

Advanced Status Text and Color: Here you can select to change your display text and warning colors.

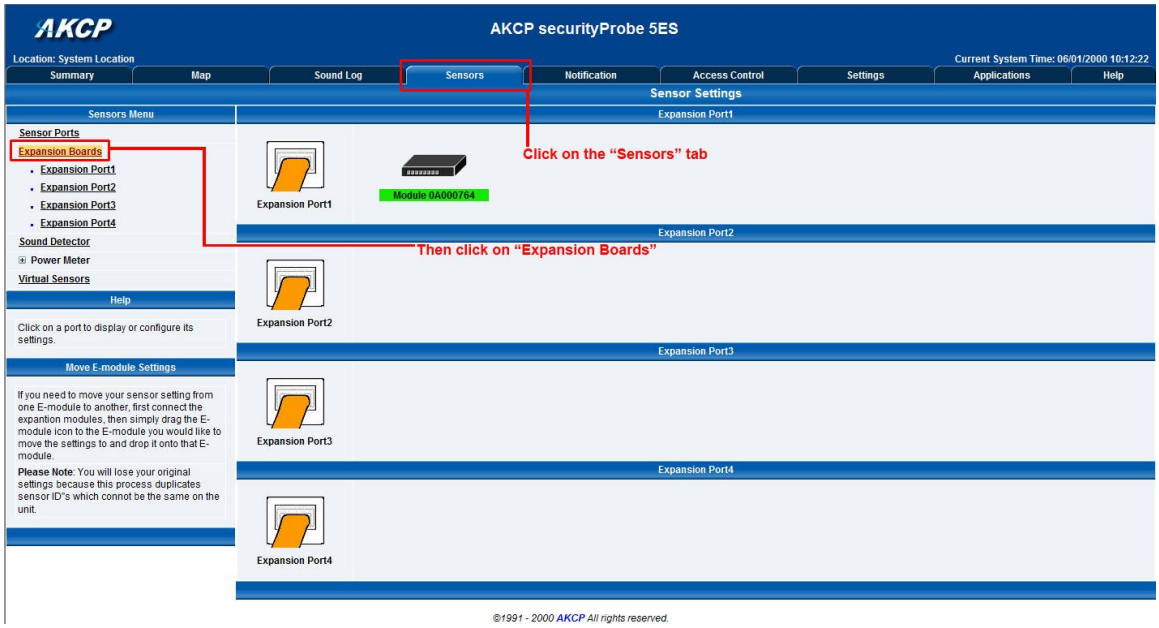
Note: As for all the other sensors you can now set up the sound detector to be attached to a notification. Then when your thresholds are broken it will trigger a specified type of notification.

1. Expansion Ports

Your AKCP Securityprobe-5ES is equipped with four expansion ports. This enables you connect up to four daisy chains of expansion modules. The available expansion modules are an eight port intelligent sensor board and an Opto-isolated sixteen dry contact expansion module. In this section we will go through the basic setup of the sensor. If you require information on specific functions of a particular sensor or expansion board then please refer to the relevant manual for that product.

a) Plug the expansion board into one of the four ports located on the front panel of the unit. These are numbered E1-E4.

b) From the summary page, navigate to the “Sensors” tab. Then click “Expansion Boards” as outlined in the image below:-


AKCP
AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 10:12:22
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Sensor Settings
Sensors Menu
Sensor Ports
Expansion Boards
Expansion Port1
Expansion Port2
Expansion Port3
Expansion Port4
Sound Detector
Power Meter
Virtual Sensors
Help
Click on a port to display or configure its settings.
Move E-module Settings
If you need to move your sensor setting from one E-module to another, first connect the expantion modules, then simply drag the E-module icon to the E-module you would like to move the settings to and drop it onto that E-module.
Please Note: You will lose your original settings because this process duplicates sensor ID"s which connot be the same on the unit.
Expansion Port1
Module 0A000764
Expansion Port2
Expansion Port3
Expansion Port4
Click on the “Sensors” tab
Then click on “Expansion Boards”
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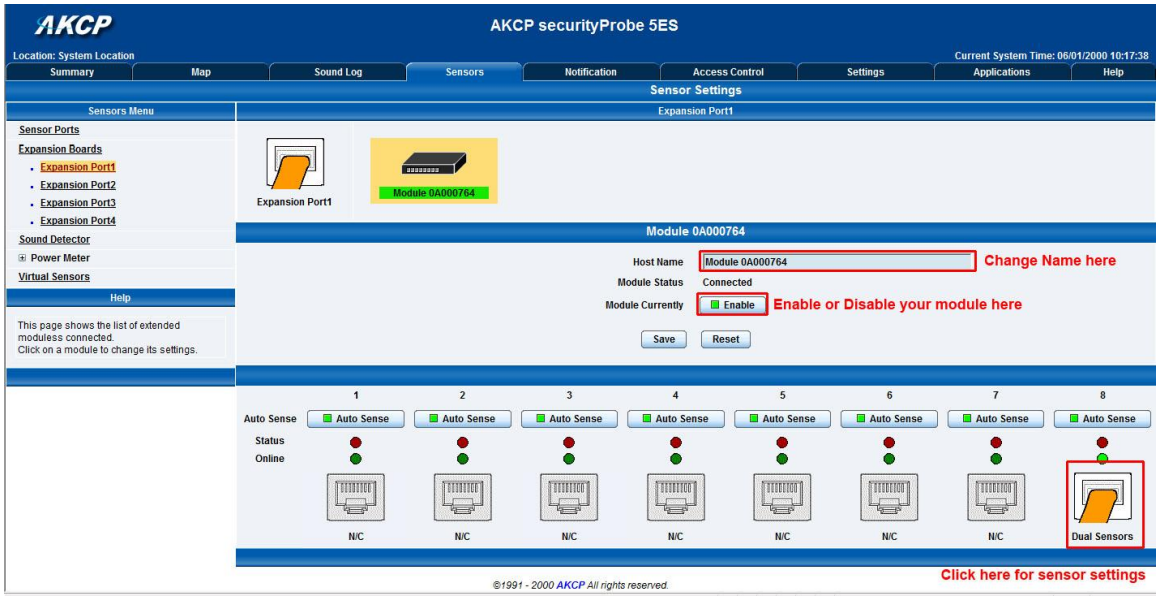
c) A list of all extended ports will be shown. Each port will display any available extension modules, these will be highlighted in green. Click the module to be taken to the sensor settings page.

d) This will bring you to the following page, the extended port sensors page:-



e) Once you have clicked on the "Dual sensors" tab you will be directed to the familiar looking notification thresholds page. From this page you can carry out various operations as indicated in the sensor settings tutorials found on page 16.

3) Notifications

If you setup a notification you can define the action to take when the sensor gives a reading beyond your previously set thresholds. This allows you to determine how you will be notified that a sensors reading has reached the specified parameters (high warning, critical etc) that we looked at in the previous section.

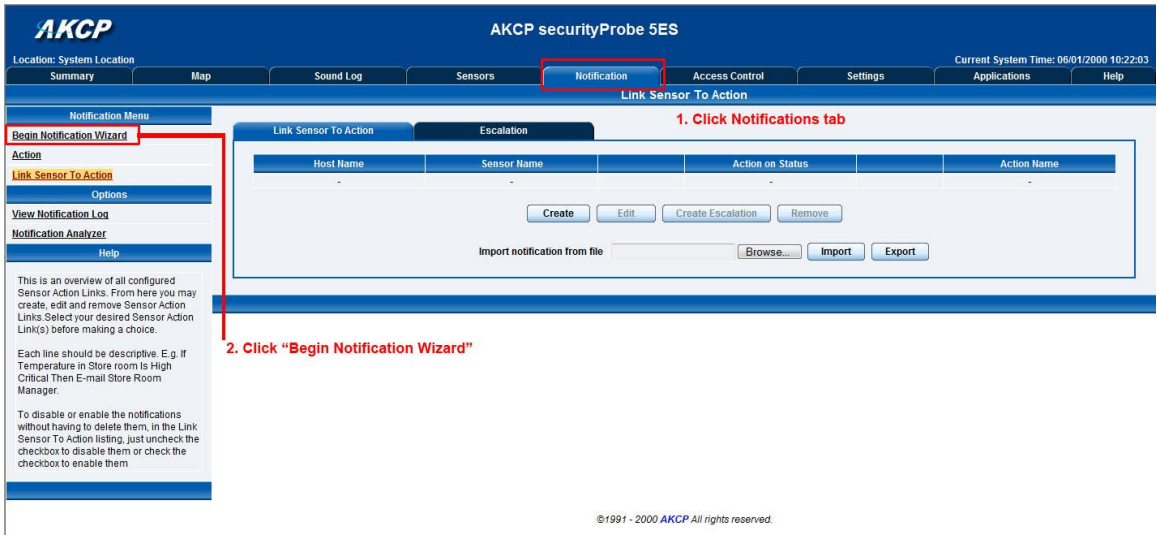
This tutorial provides you the information needed to setup a notification.

To get to the starting point of this tutorial:

- Login as administrator
- Click the “Notifications” tab

1. Adding a notification

a) First click on the “notification wizard”


AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 10:22:03
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Link Sensor To Action
Notification Menu
Begin Notification Wizard
Action
Link Sensor To Action
Options
View Notification Log
Notification Analyzer
Help
This is an overview of all configured Sensor Action Links. From here you may create, edit and remove Sensor Action Links.Select your desired Sensor Action Link(s) before making a choice.
Each line should be descriptive. E.g. If Temperature in Store room Is High Critical Then E-mail Store Room Manager.
To disable or enable the notifications without having to delete them, in the Link Sensor To Action listing, just uncheck the checkbox to disable them or check the checkbox to enable them
1. Click Notifications tab
Link Sensor To Action
Escalation
Host Name
Sensor Name
Action on Status
Action Name
Create
Edit
Create Escalation
Remove
Import notification from file
Browse...
Import
Export
2. Click “Begin Notification Wizard”
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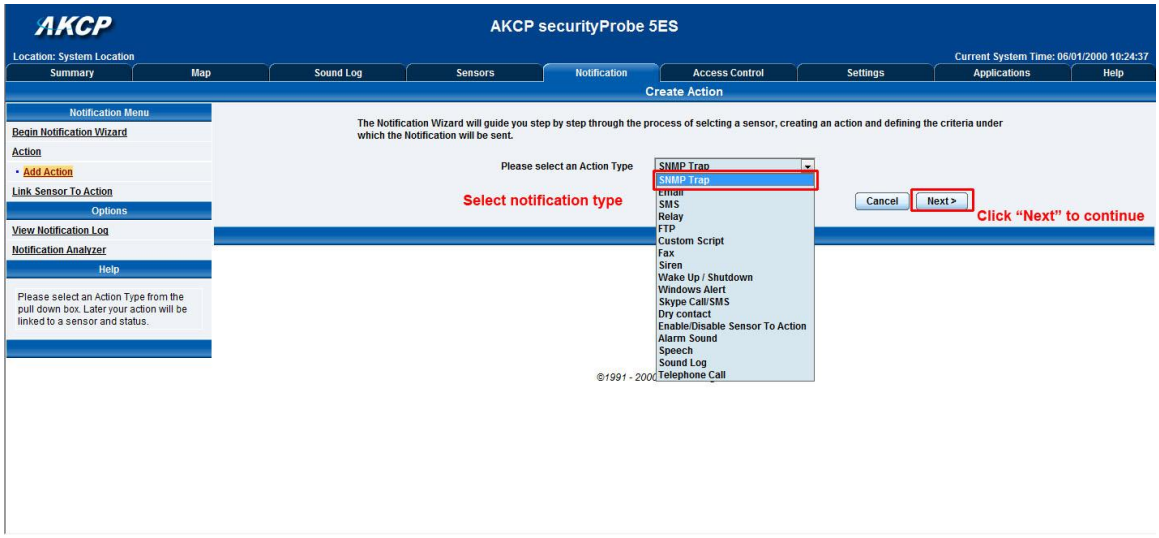
b) You will now have the notification wizard page displayed, shown on the next page.



We will now go through setting up a few different ways of notification step by step. To learn what the other types of notifications do refer to the separate notification manuals that can be found on your product CD.

2. SNMP trap

First we will set up a notification via SNMP trap, so that when your sensor reaches a certain threshold it will send a notification to your SNMP server.

This tutorial provides you the information needed to setup an SNMP trap.

To get to the starting point of this tutorial:

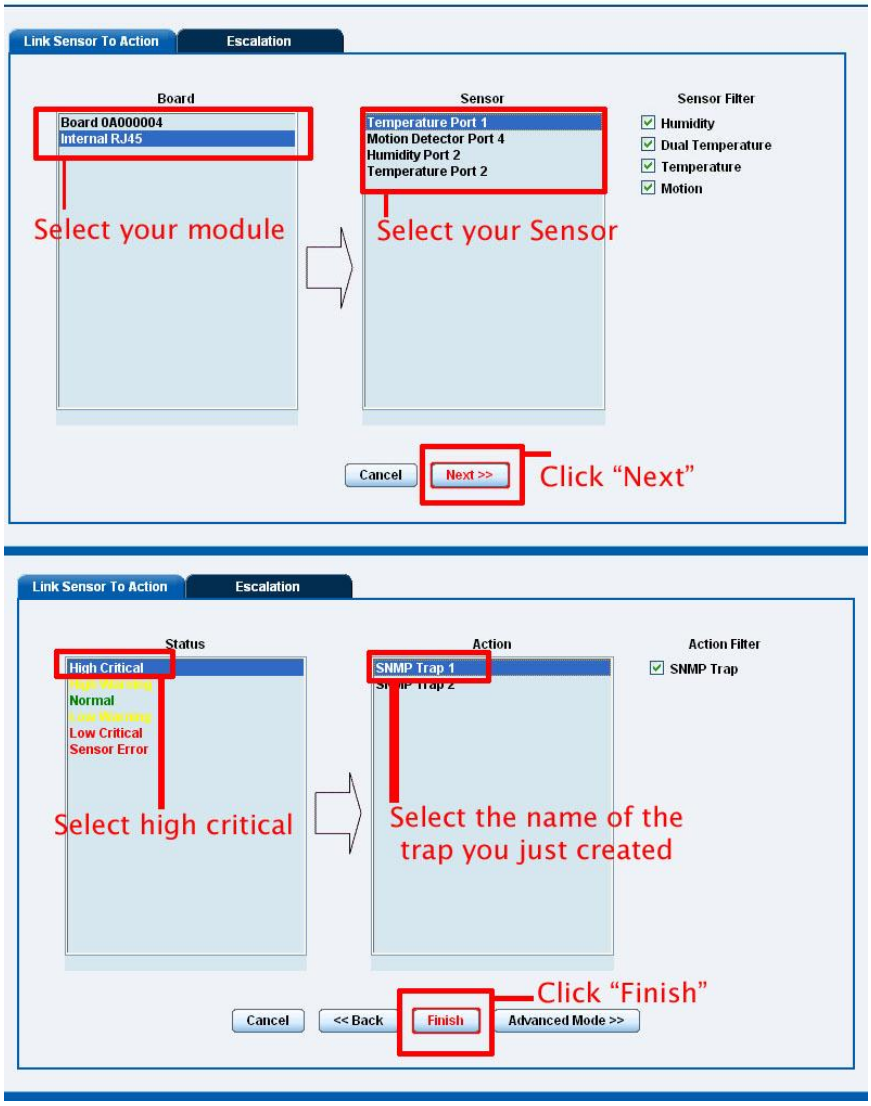
- Log in as administrator
- Click the “Notifications” tab
- Choose “Notifications wizard”
- Choose SNMP trap

a) After selecting to add an SNMP trap you will need to fill in the following information

b) Once this information is correct you can press the “Add Trap Destination” button. After clicking this you have the option of inputting another trap, or clicking on “Next”. Now you can enter the following parameters:-

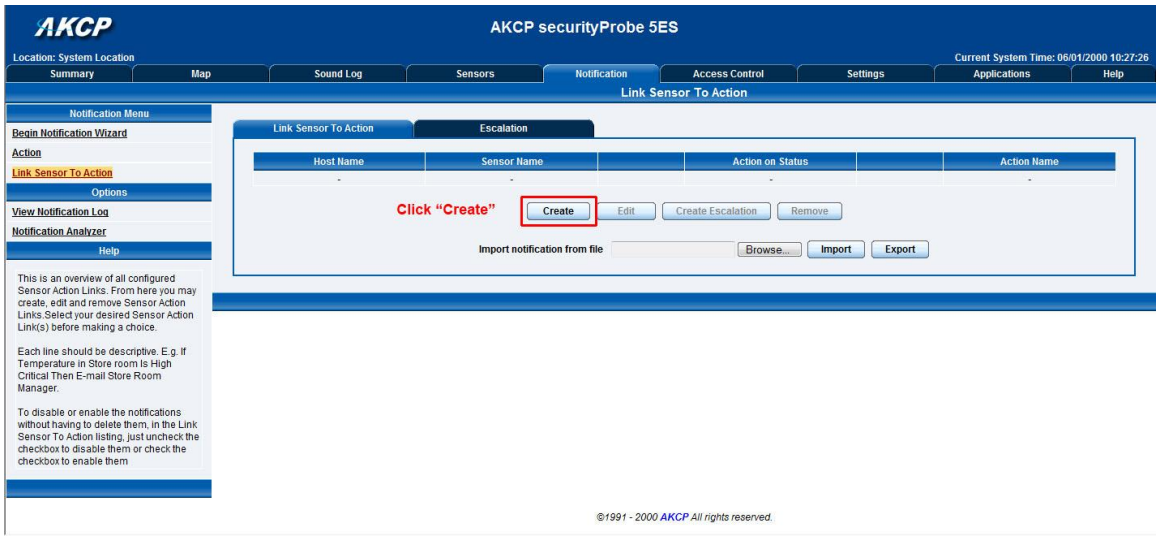
These parameters set the maximum number of times to send the trap notification and the time interval between each notification.

c) After clicking next you will be presented with the following screens:-



On these screens you can select the parameters for when to send the SNMP trap notification. In our example we have selected to bind the SNMP trap to the temperature sensor we have connected on port 1. The trap will be sent when the sensor reads a "High Critical" and we bind this to the SNMP trap we just created and named "SNMP Trap 1"

d) Once we have created the parameters for the SNMP trap, we need to make it active. To do this go back to the notifications tab and it should look like the following:-


AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 10:27:26
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Link Sensor To Action
Notification Menu
Begin Notification Wizard
Action
Link Sensor To Action
Options
View Notification Log
Notification Analyzer
Help
This is an overview of all configured Sensor Action Links. From here you may create, edit and remove Sensor Action Links.Select your desired Sensor Action Link(s) before making a choice.
Each line should be descriptive. E.g. If Temperature in Store room Is High Critical Then E-mail Store Room Manager.
To disable or enable the notifications without having to delete them, in the Link Sensor To Action listing, just uncheck the checkbox to disable them or check the checkbox to enable them
Link Sensor To Action
Escalation
Host Name
Sensor Name
Action on Status
Action Name
Click "Create"
Create
Edit
Create Escalation
Remove
Import notification from file
Browse...
Import
Export
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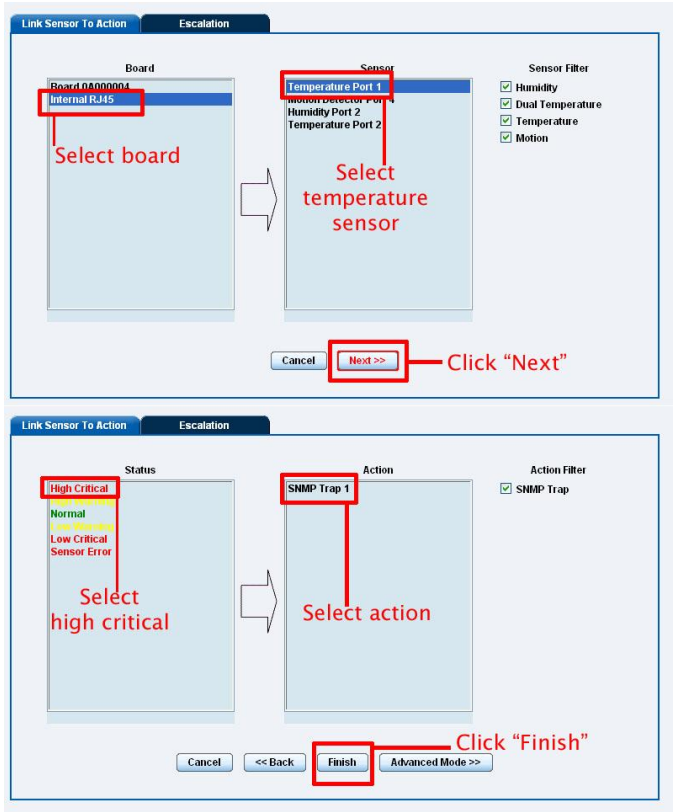
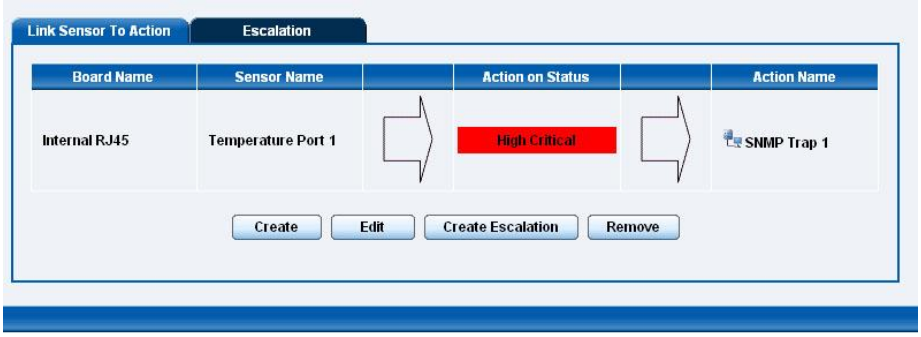
e) Select the sensor and SNMP trap parameters as before



f) Now you will see the SNMP trap has been added to our notifications page:-



Note: To remove this trap and make it inactive, highlight the notification and click remove.

You can repeat this process to set up multiple SNMP traps for different sensors, or for multiple SNMP servers etc.

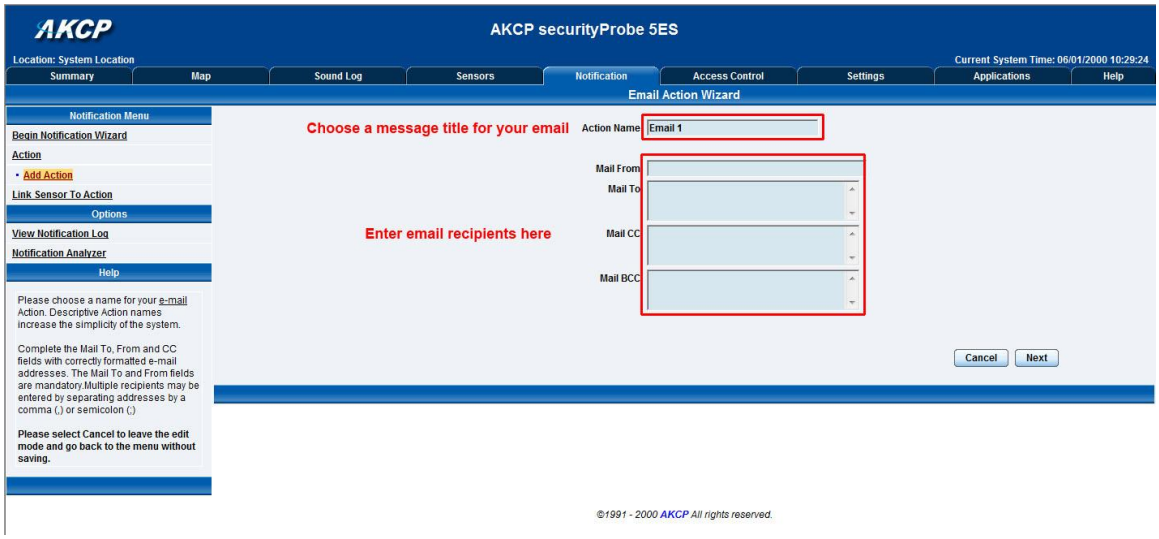
3. E-mail

This tutorial provides you the information needed to setup an E-Mail Notification.

To get to the starting point of this tutorial:

- Log in as administrator
- Select the “Notifications” tab
- Click “Notification Wizard”

a) If you select to set up an E-mail notification you will be shown the following page


AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 10:29:24
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Email Action Wizard
Notification Menu
Begin Notification Wizard
Action
Add Action
Link Sensor To Action
Options
View Notification Log
Notification Analyzer
Help
Please choose a name for your e-mail Action. Descriptive Action names increase the simplicity of the system.
Complete the Mail To, From and CC fields with correctly formatted e-mail addresses. The Mail To and From fields are mandatory.Multiple recipients may be entered by separating addresses by a comma (,) or semicolon (;)
Please select Cancel to leave the edit mode and go back to the menu without saving.
Choose a message title for your email
Action Name
Email 1
Mail From
Mail To
Enter email recipients here
Mail CC
Mail BCC
Cancel
Next
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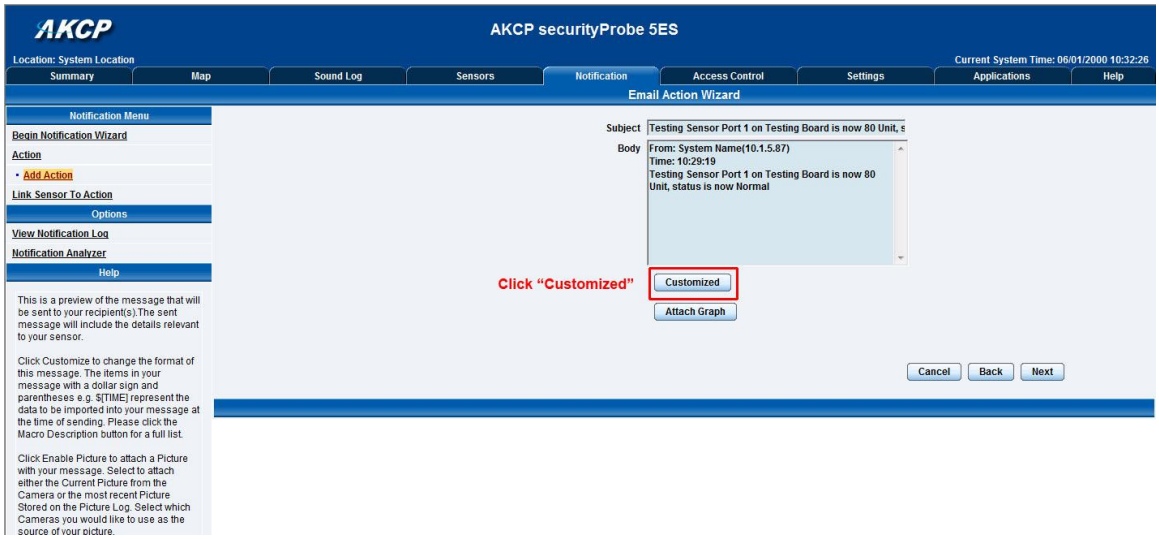
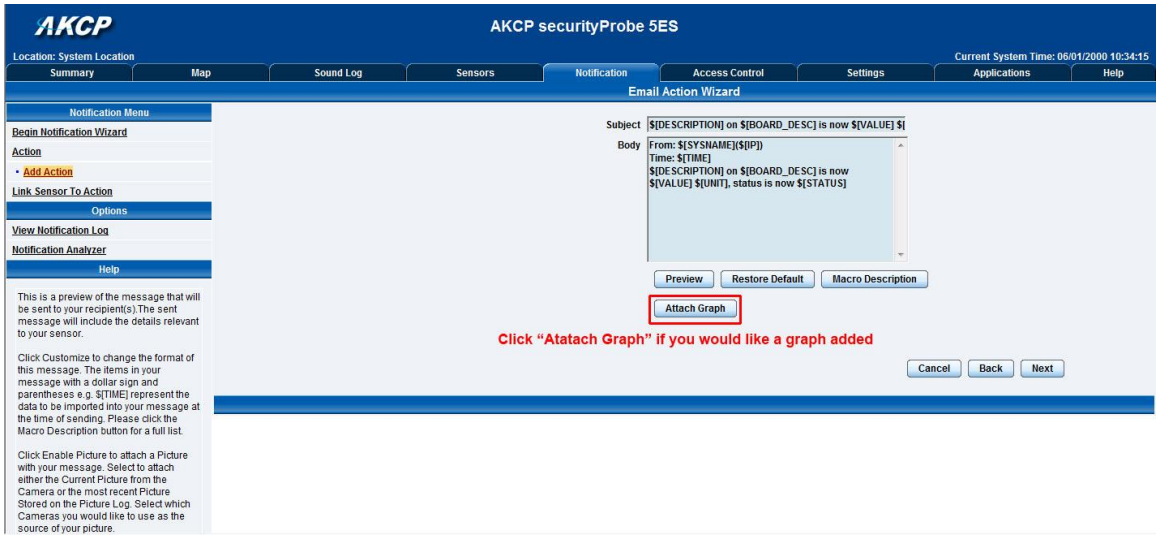
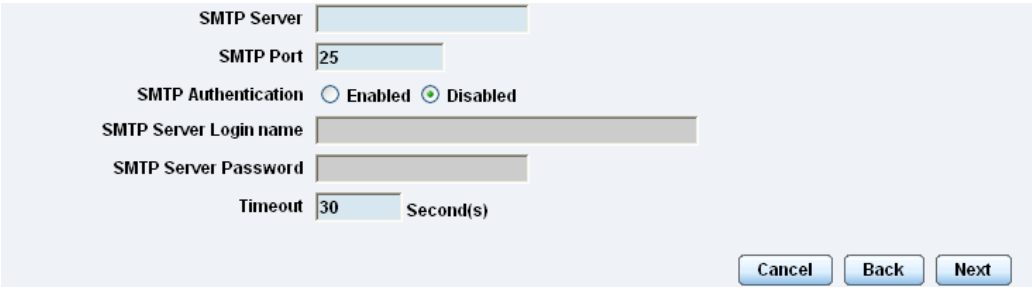
b) After clicking “Next” you will get a page where you can input the e-mail name and message. Press the “Customize” button and the fields will re-write in a format that will allow for an automated e-mail that will display the sensor information.


AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 10:32:26
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Email Action Wizard
Notification Menu
Begin Notification Wizard
Action
Add Action
Link Sensor To Action
Options
View Notification Log
Notification Analyzer
Help
This is a preview of the message that will be sent to your recipient(s).The sent message will include the details relevant to your sensor.
Click Customize to change the format of this message. The items in your message with a dollar sign and parentheses e.g. $[TIME] represent the data to be imported into your message at the time of sending. Please click the Macro Description button for a full list.
Click Enable Picture to attach a Picture with your message. Select to attach either the Current Picture from the Camera or the most recent Picture Stored on the Picture Log. Select which Cameras you would like to use as the source of your picture.
Subject
Testing Sensor Port 1 on Testing Board is now 80 Unit, s
Body
From: System Name(10.1.5.87)
Time: 10:29:19
Testing Sensor Port 1 on Testing Board is now 80 Unit, status is now Normal
Click “Customized”
Customized
Attach Graph
Cancel
Back
Next


AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 10:34:15
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Email Action Wizard
Notification Menu
Begin Notification Wizard
Action
Add Action
Link Sensor To Action
Options
View Notification Log
Notification Analyzer
Help
This is a preview of the message that will be sent to your recipient(s).The sent message will include the details relevant to your sensor.
Click Customize to change the format of this message. The items in your message with a dollar sign and parentheses e.g. $[TIME] represent the data to be imported into your message at the time of sending. Please click the Macro Description button for a full list.
Click Enable Picture to attach a Picture with your message. Select to attach either the Current Picture from the Camera or the most recent Picture Stored on the Picture Log. Select which Cameras you would like to use as the source of your picture.
Subject
$[DESCRIPTION] on $[BOARD_DESC] is now $[VALUE] $[
Body
From: $[SYSNAME]($[IP])
Time: $[TIME]
$[DESCRIPTION] on $[BOARD_DESC] is now
$[VALUE] $[UNIT], status is now $[STATUS]
Preview
Restore Default
Macro Description
Attach Graph
Click "Atatach Graph" if you would like a graph added
Cancel
Back
Next

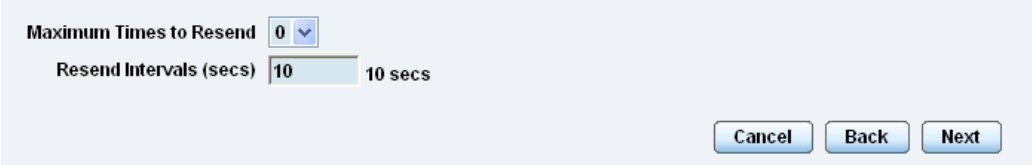
After this click "Next"

c) Now you need to input your SMTP server address for your e-mail account.



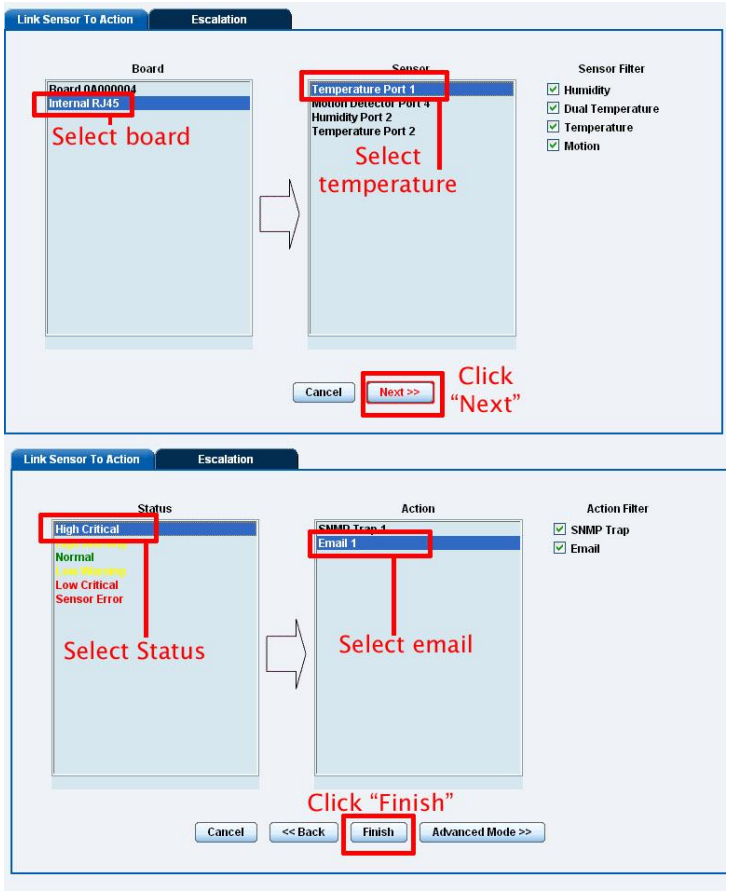
Once this is correct, click next.

d) Now, as with the SNMP trap you can select how many times to attempt to resend the e-mail, and the time elapsed between each attempt.



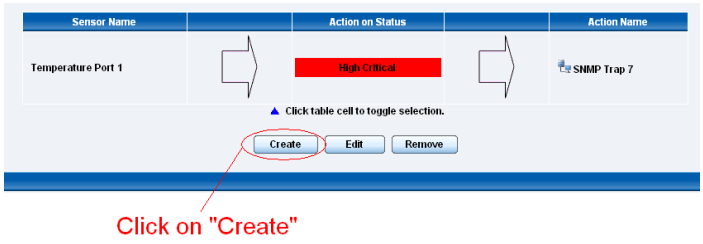
Click next when you have filled in your parameters.

e) Now link the e-mail we just created to the temperature sensor on port 1.

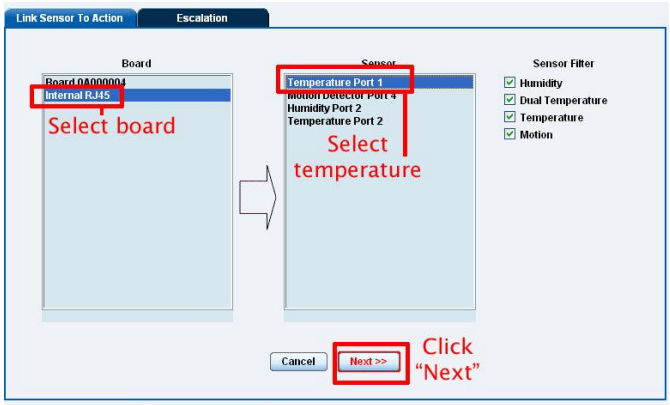


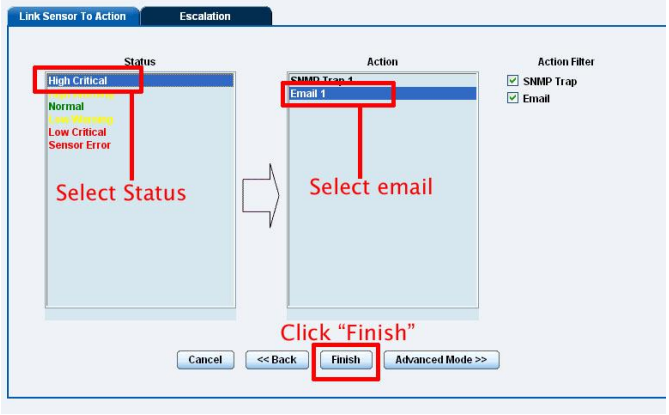
Click on "Finish". You will now be taken back to the main Notification tab.

f) Click on create

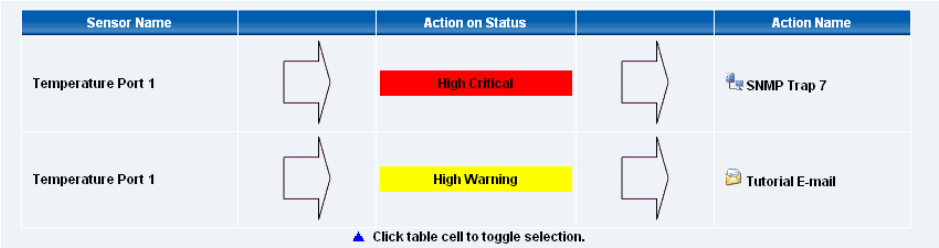


g) Create the notification link as before. Then click finish





h) You will now be back at the main notification page. You should now see listed our two notifications, the SNMP trap and the e-mail.



As you can see from this page, we now have an SNMP trap set up not give us notification of a "High Critical", and an E-mail notification that will activate on a "High Warning"

4. SMS notification

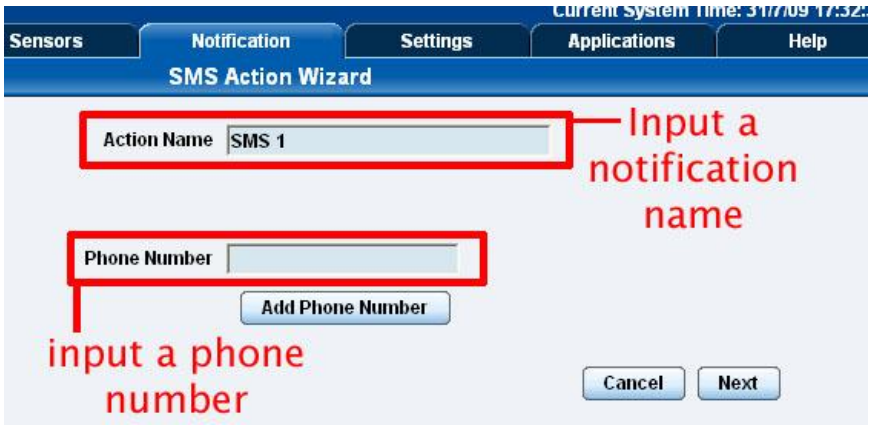
Now, we will set up a notification so that you will be sent an SMS message. This message can be sent via a GSM/GPRS mobile phone connected via a Bluetooth connection or the USB port.

This tutorial provides you the information needed to setup a SMS notification.

To get to the starting point of this tutorial:

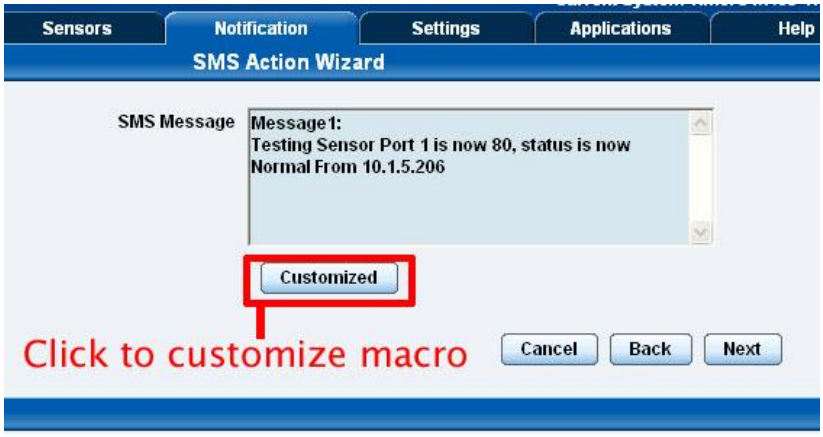
- Log in as administrator
- Select the "Notifications" tab
- Click "Notification Wizard"

a) From the list of notification types select SMS and click next. You will then be presented with this :-



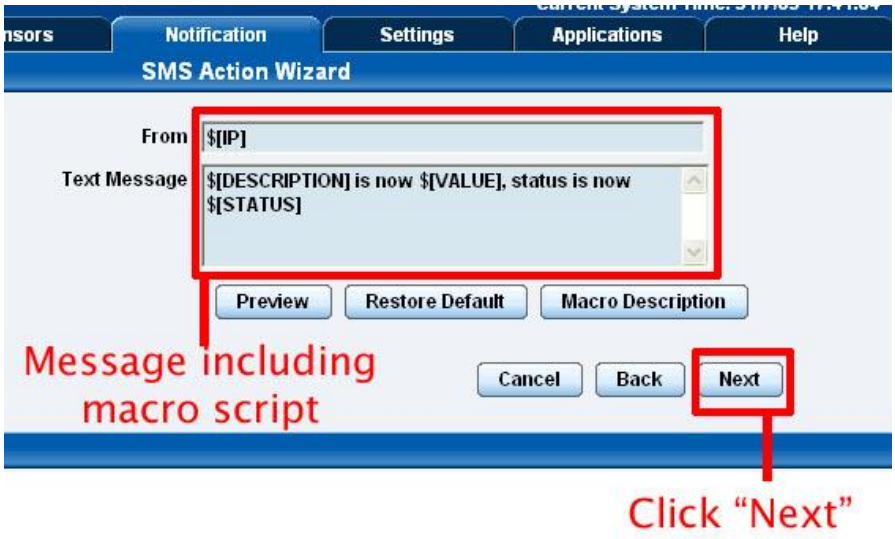
b) You can now either add multiple numbers, or click next. In our case we will click next.

c) Now we will set up the message that will be sent to the phone. You will see the following screen.



Note: A macro is a script that returns specific data collected by the unit. In our example here the macro will tell the notification to contain the "description" (sensor name), the value (current sensor reading) and the status (high/low warning etc) these macros are common to all sensor notifications.

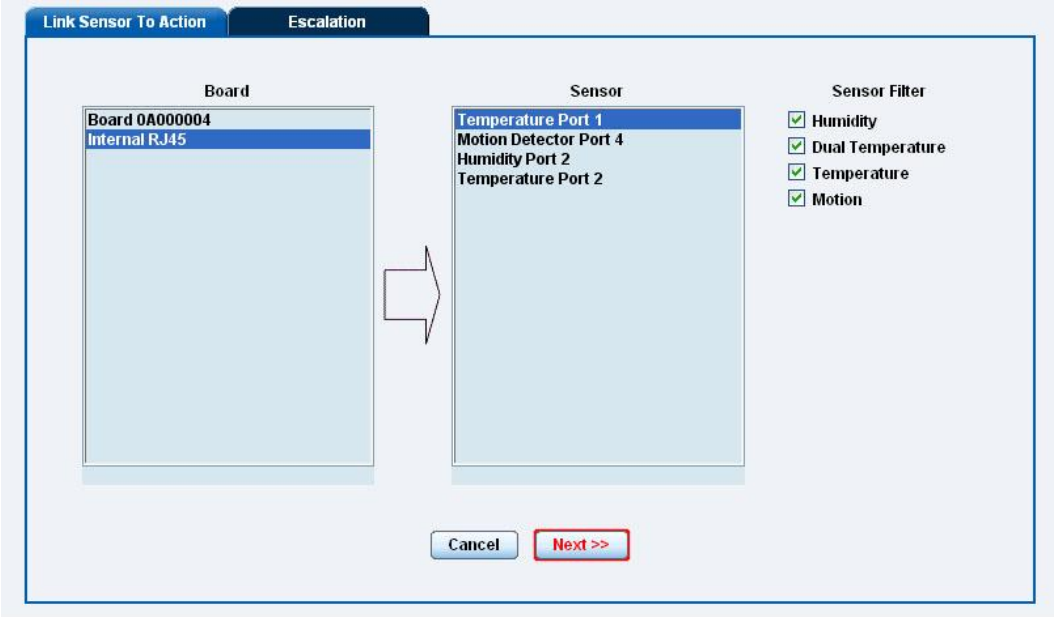
d) You will now see that the SMS message has changed its format to include the Macro script.

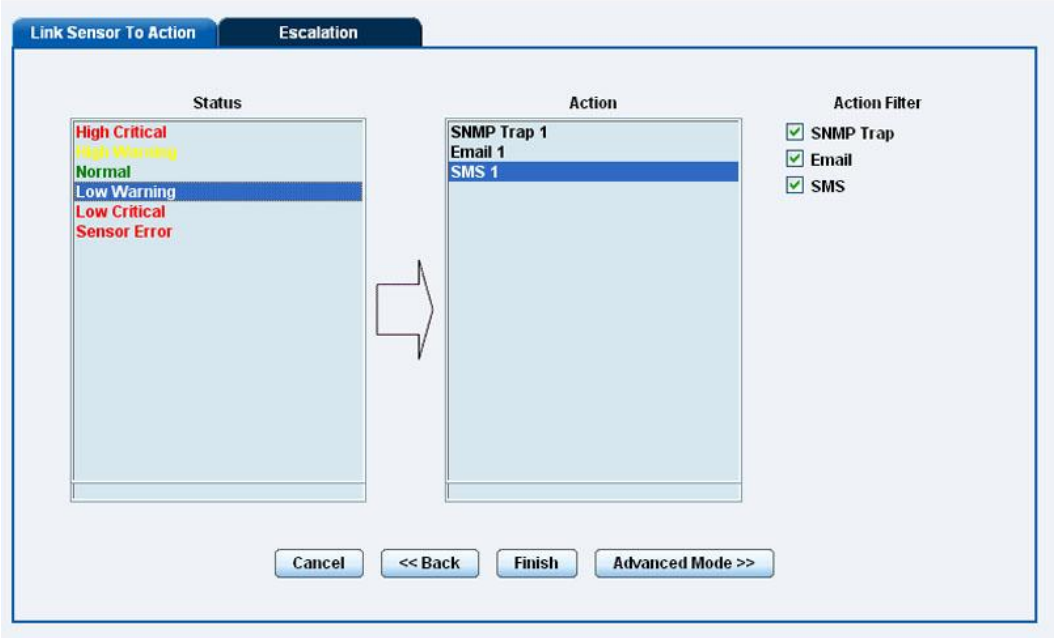


e) Next we will choose to set up the type of connection. This will depend on the type of modem you are connecting. For the purpose of this tutorial we will assume you are connecting a GSM/GPRS enabled modem to the serial port. Therefore we will select COM1 from the list.

f) You will now be able to select the number of times you wish the SMS to be resent and the interval between sending them.

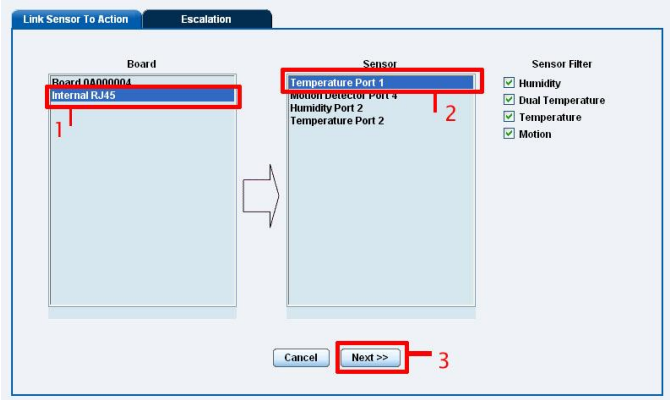
g) Again we now select the sensor to which to bind this notification too.

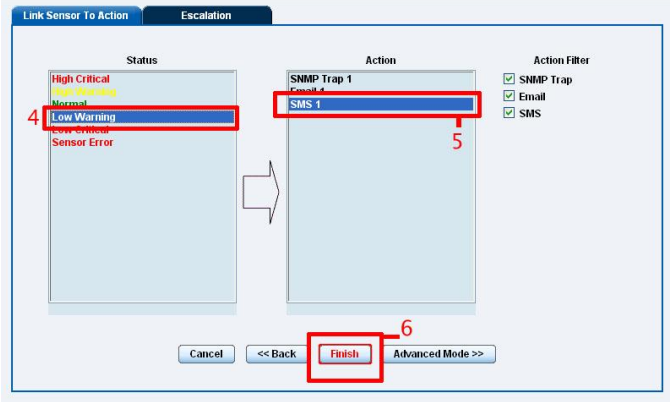




As before, select the Temperature sensor on port 1. This time we will use this notification for a low critical. Then select the notification name we assigned, in this case we chose “SMS 1”. Click Finish to finalize this.

h) Now we will add the SMS notification to our active list. This is the same process as for the others, simply click on create and then select the appropriate parameters.





j) You will now be back at the main notification page. Now the page should display three types of notifications, the SNMP trap, E-mail and SMS.

For the purposes of this tutorial we will not cover the set up of every type of notification. However, with this information you should be able to follow the procedure for the other types of notifications easily, as they all follow a similar format. If you still encounter difficulties with this then please contact us on support@akcp.com.

5) Mapping

The mapping feature allows for an instant visual feedback as to a sensors position, and status. It is a useful monitoring tool for a set up with several sensors in different positions.

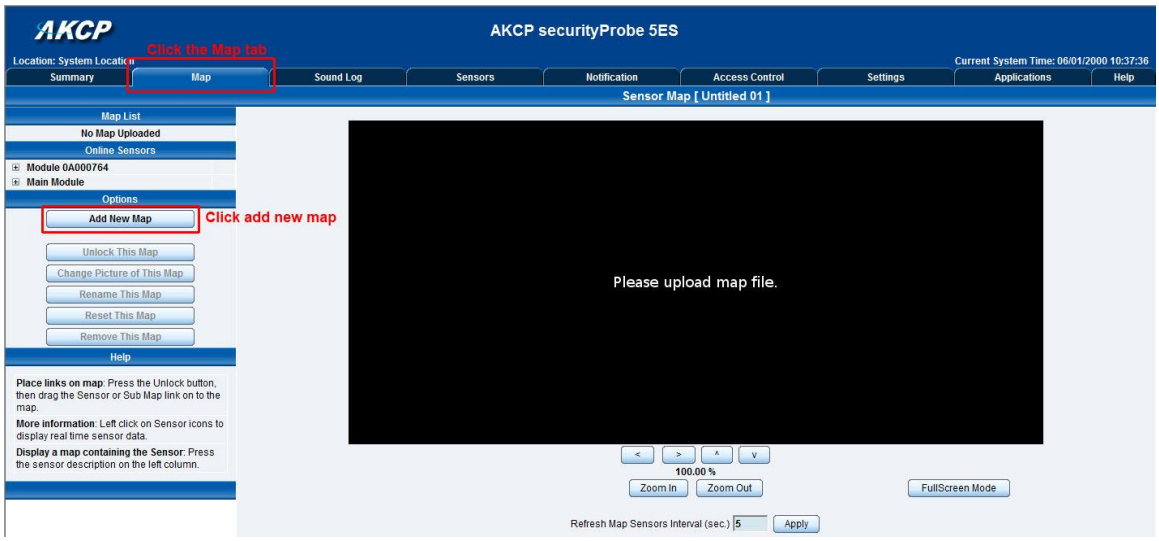
This tutorial provides you the information needed to setup the mapping feature.

To get to the starting point of this tutorial:

- Log in as administrator
- Click the “map” tab

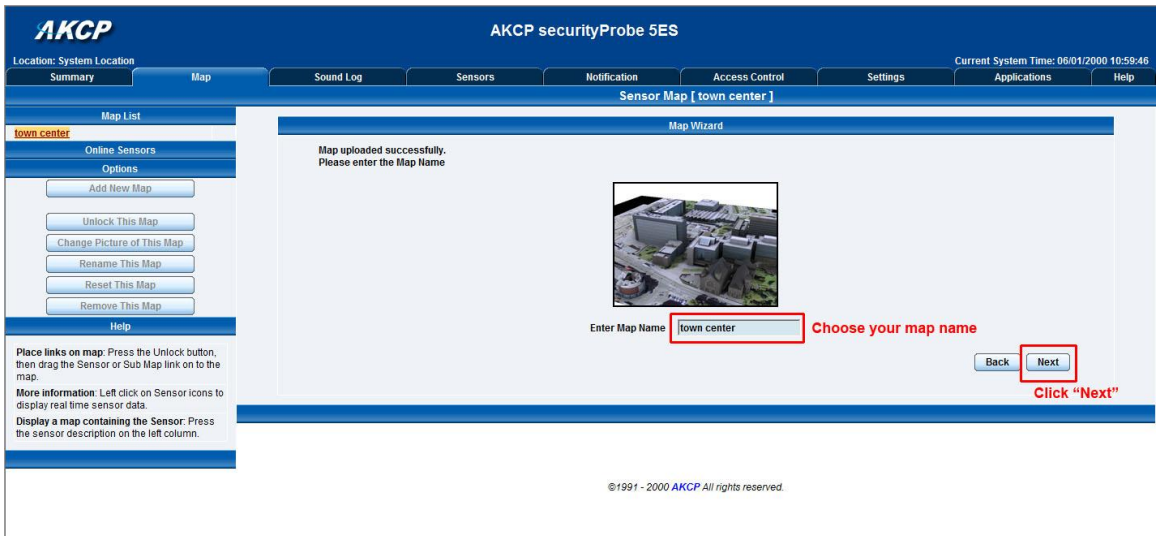
1. Adding a map

a) First we need to add a picture file to be used as the map. This can be a blueprint of your office, a 3D picture of your office/site being monitored, or a photo of the wiring closet you are monitoring.



b) Now you can browse to the file on your HDD you wish to use.

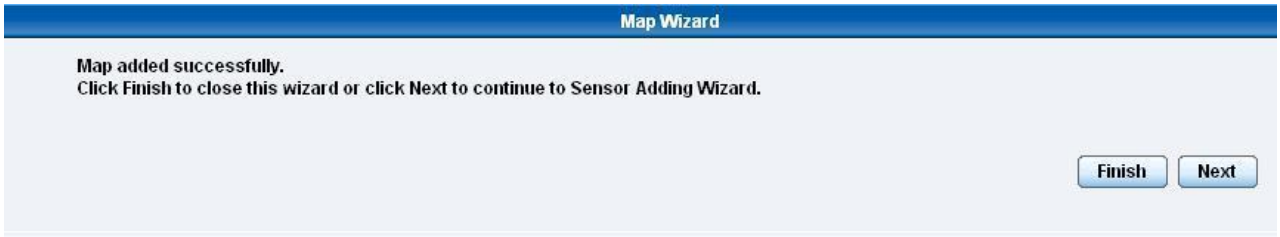
c) In this tutorial we are going to use a 3D map of a town center we are monitoring.



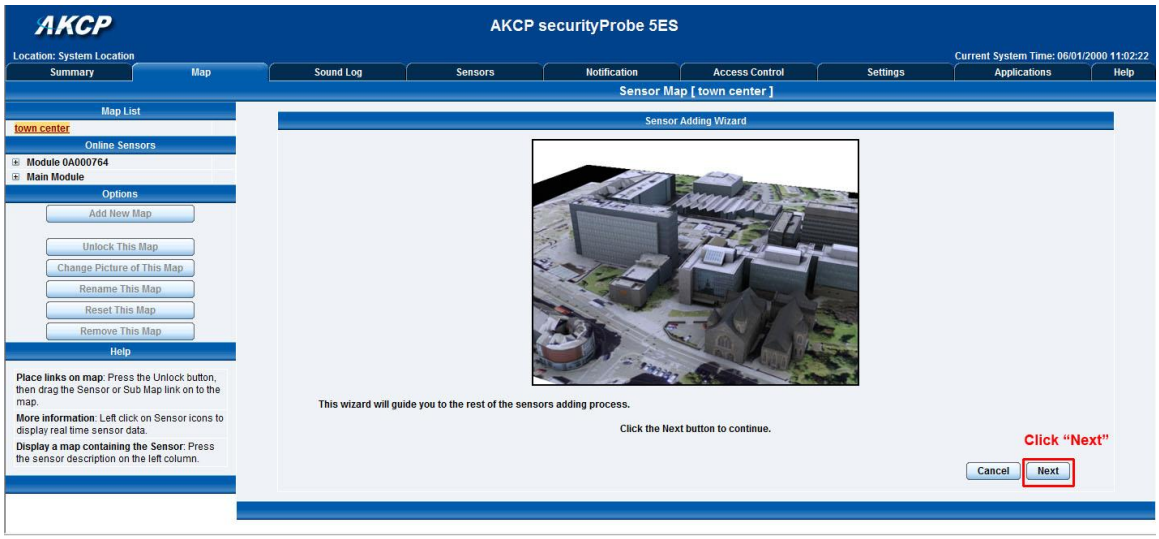
d) Choose to have the map as a top level map.

Sensor Map [campus map]
Map Wizard
This Map can be assigned as a sub-Map or as a top level map.
Please assign parent map for this map.
Select Parent Map
Set as Top Level
Set map as top level
Back
Next
Click "Next"

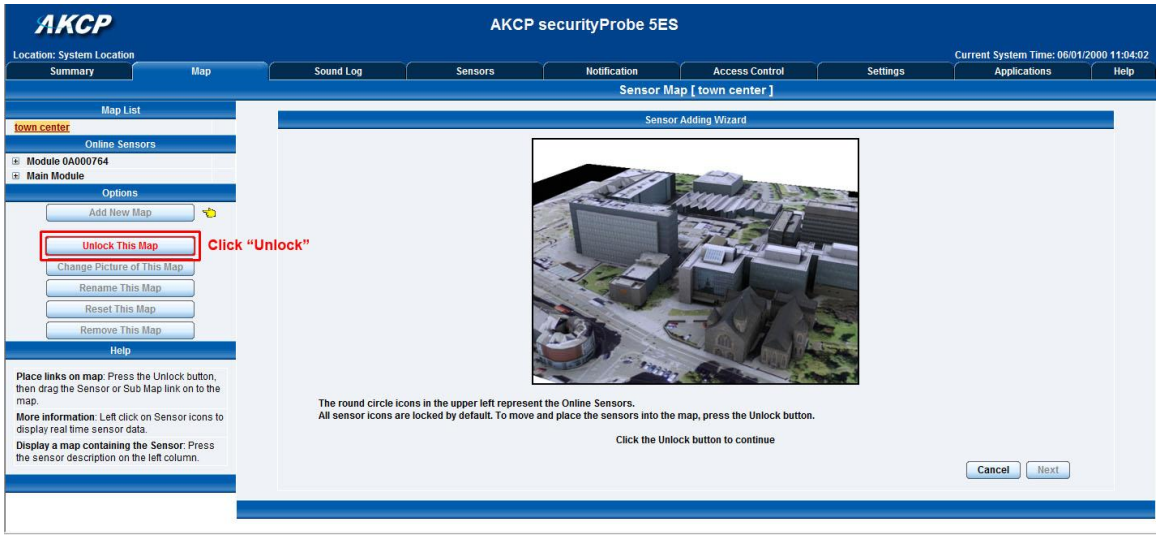
e) You will now have the option to finish or to continue adding your sensors to the map. For this tutorial, click next.


Map Wizard
Map added successfully.
Click Finish to close this wizard or click Next to continue to Sensor Adding Wizard.
Finish
Next

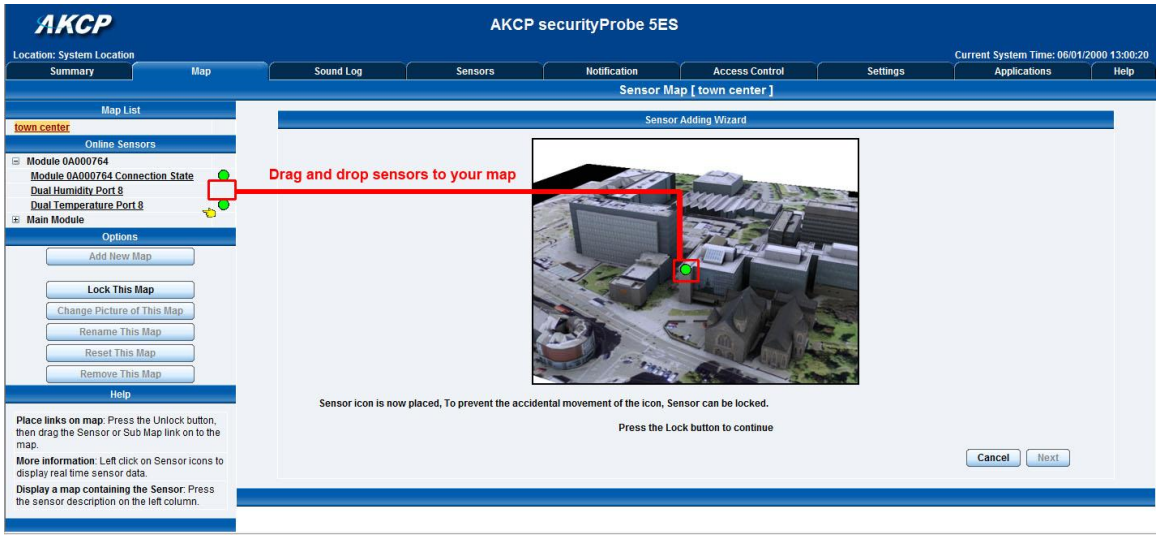
f) You will now be taken to the map page where it will display your map. To continue adding the sensors click next.



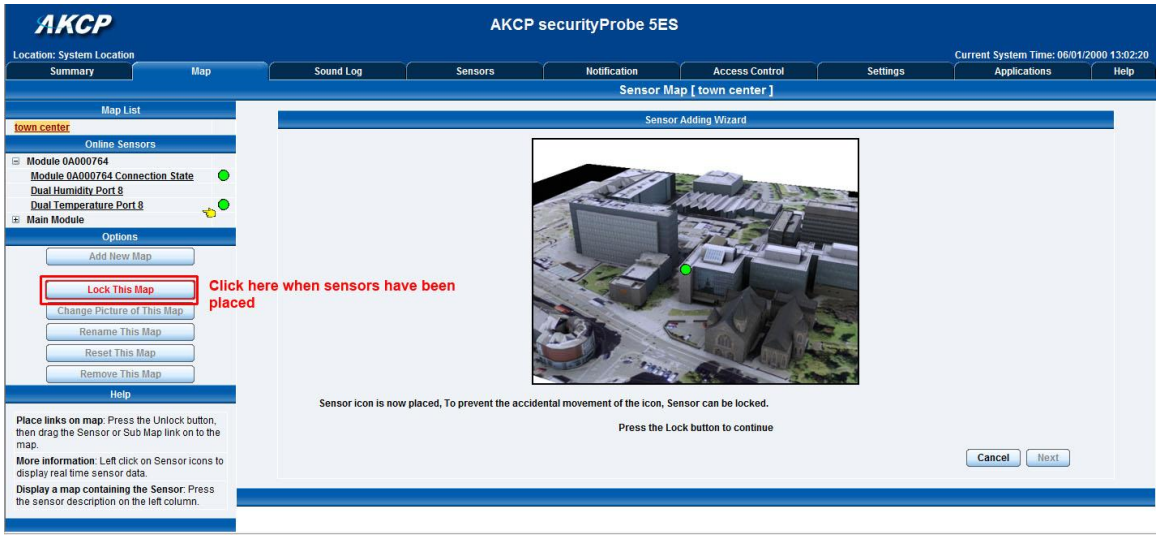
g) After clicking next you will be directed to click the "Unlock" button.


AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 11:04:02
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Sensor Map [town center]
Map List
town center
Online Sensors
Module 0A000764
Main Module
Options
Add New Map
Unlock This Map
Click "Unlock"
Change Picture of This Map
Rename This Map
Reset This Map
Remove This Map
Help
Place links on map: Press the Unlock button, then drag the Sensor or Sub Map link on to the map.
More information: Left click on Sensor icons to display real time sensor data.
Display a map containing the Sensor: Press the sensor description on the left column.
Sensor Adding Wizard
The round circle icons in the upper left represent the Online Sensors.
All sensor icons are locked by default. To move and place the sensors into the map, press the Unlock button.
Click the Unlock button to continue
Cancel
Next

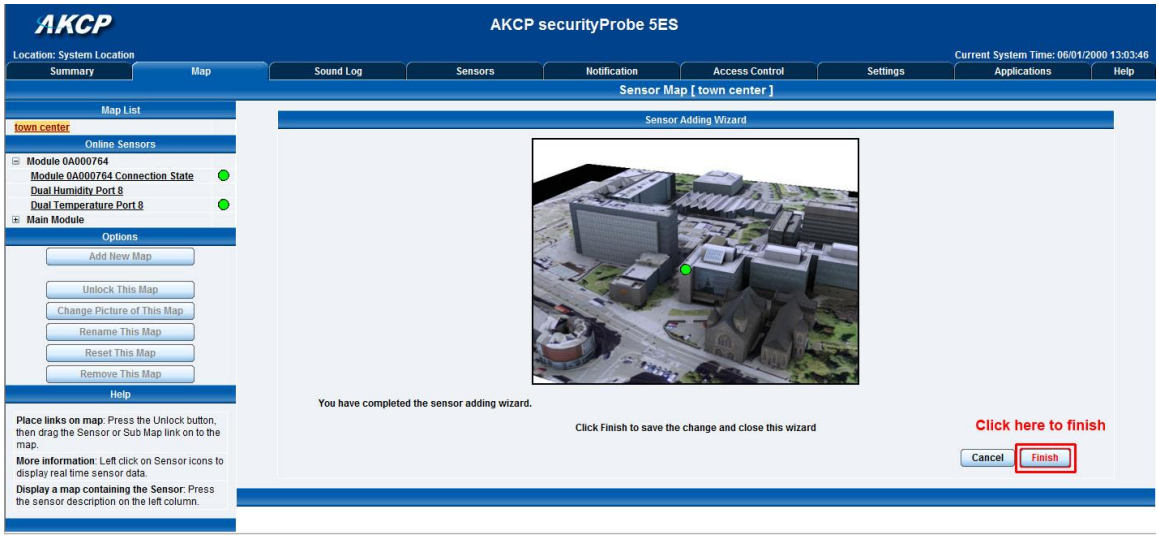
You can now drag sensor icons and position them on the map


AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 13:00:20
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Sensor Map [town center]
Map List
town center
Online Sensors
Module 0A000764
Module 0A000764 Connection State
Dual Humidity Port 8
Dual Temperature Port 8
Main Module
Options
Add New Map
Lock This Map
Change Picture of This Map
Rename This Map
Reset This Map
Remove This Map
Help
Place links on map: Press the Unlock button, then drag the Sensor or Sub Map link on to the map.
More information: Left click on Sensor icons to display real time sensor data.
Display a map containing the Sensor: Press the sensor description on the left column.
Sensor Adding Wizard
Drag and drop sensors to your map
Sensor icon is now placed, To prevent the accidental movement of the icon, Sensor can be locked.
Press the Lock button to continue
Cancel
Next

i) After you have positioned the sensors in the correct location of your map click on “Unlock”


AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 13:02:20
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Sensor Map [town center]
Map List
town center
Online Sensors
Module 0A000764
Module 0A000764 Connection State
Dual Humidity Port 8
Dual Temperature Port 8
Main Module
Options
Add New Map
Lock This Map
Click here when sensors have been placed
Change Picture of This Map
Rename This Map
Reset This Map
Remove This Map
Help
Place links on map: Press the Unlock button, then drag the Sensor or Sub Map link on to the map.
More information: Left click on Sensor icons to display real time sensor data.
Display a map containing the Sensor: Press the sensor description on the left column.
Sensor Adding Wizard
Sensor icon is now placed, To prevent the accidental movement of the icon, Sensor can be locked.
Press the Lock button to continue
Cancel
Next

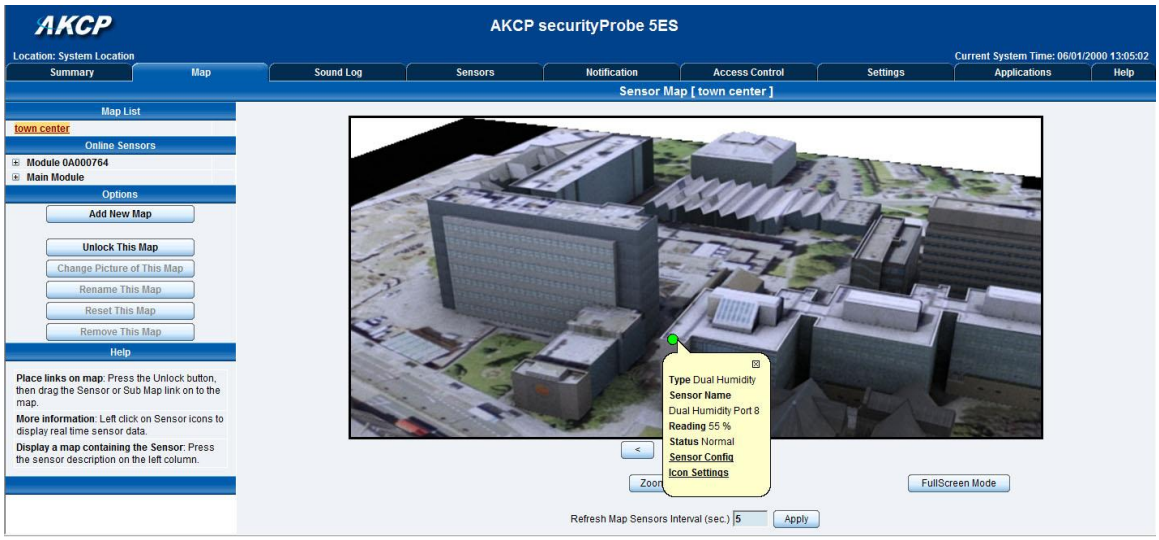
j) Finally you click on the “Finish: button to save your changes



2. Monitoring via the map interface

Now we are going to look at how to monitor the sensor status and use the map interface.

a) To see further information regarding a sensor you can click on its icon. First you must click on the “Lock Icons” button.



If you connect other sensors, these too can be dragged and positioned on the map.

6) Filters

1) Sensor filters

The module now comes equipped with the option to filter your sensor information which is displayed within the summary page. To enter the filter menu, select “Sensor Filters” from the dropdown tab on the left of the page:-

AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 13:11:34
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Summary Setting
Layout Setting
Sensor Filters
Sort by : Host Name
Advanced Filter
Display Status
Display Sensor Type
Display Host Name
Search :
Apply Filter
Clear Filter
Expand All Modules
Collapse All Modules
Reload Sensor Interval : 10 secs. Apply
Syslog Filters
Sensor Information
Host Name
Type
Sensor Name
Reading
Status
Main Module
Module
Main Module
-
Normal
Module 0A000764
Module
Module 0A000764
-
Normal
Sensors status will be reloaded in 08 secs
System Log (33 messages)
1 2000/01/06 10:43:04 Temperature Port 8 is 27.5 °C, status is Normal
2 2000/01/06 10:38:16 Temperature Port 8 is 30.0 °C, status is High Warning
3 2000/01/06 10:11:59 Dual Temperature Port 8 on Module 0A000764 is 26.8 °C, status is Normal
4 2000/01/06 10:11:59 Dual Humidity Port 8 on Module 0A000764 is 56 %, status is Normal
5 2000/01/06 10:11:55 Module 0A000764 is enabled
6 2000/01/06 10:08:23 Module 0A000764 Connection State on Module 0A000764 status is Normal
7 2000/01/06 10:03:29 Module 0A000764 is disabled
8 2000/01/06 05:55:01 Temperature Port 8 is 27.5 °C, status is Normal
9 2000/01/05 16:18:52 Temperature Port 8 is 30.0 °C, status is High Warning
10 2000/01/05 10:31:42 Temperature Port 8 is 27.5 °C, status is Normal
System Log will be reloaded in 09 secs
Click here to view filter options
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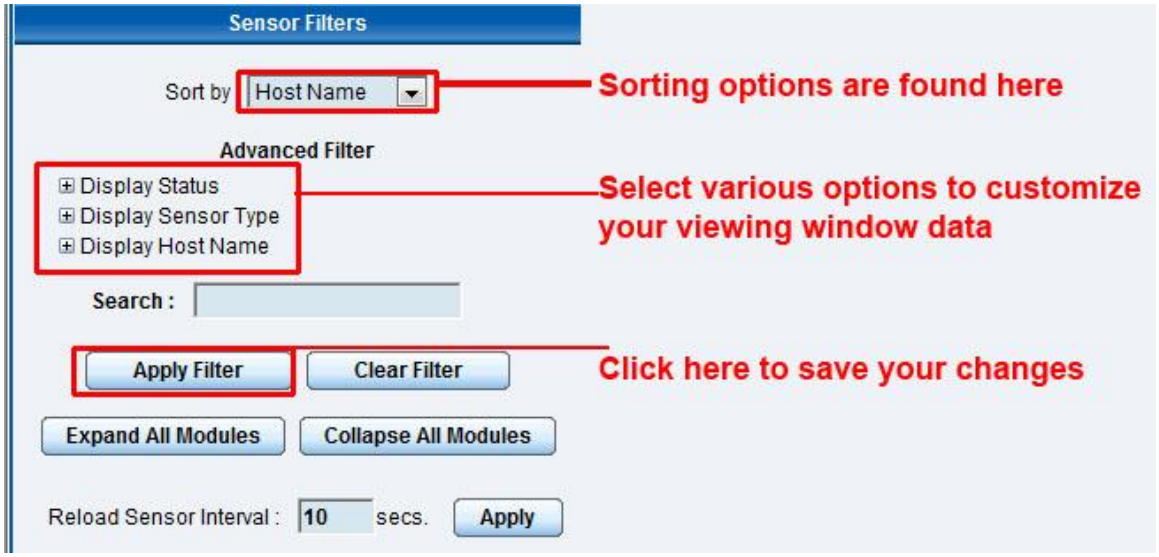
Once you have clicked the tab you will be able to select your filter results by altering various fields of information contained within sensor filter window:-



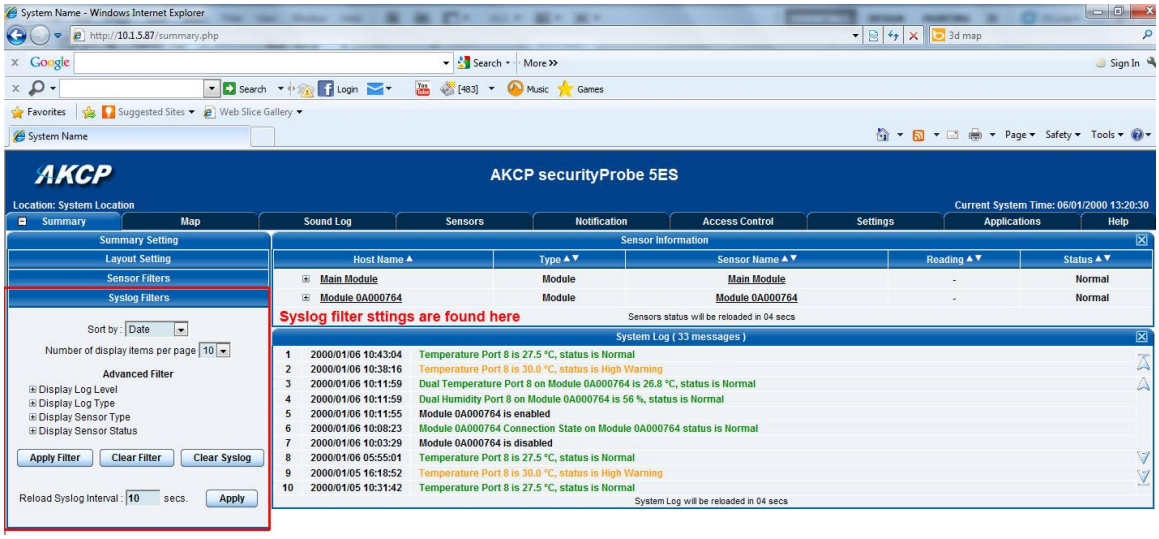
Altering your page reload interval can be achieved by using these options shown below:-

Once you have selected your preferred filter options, your new settings will be displayed in the "Sensor Information" window found on the summary page:-

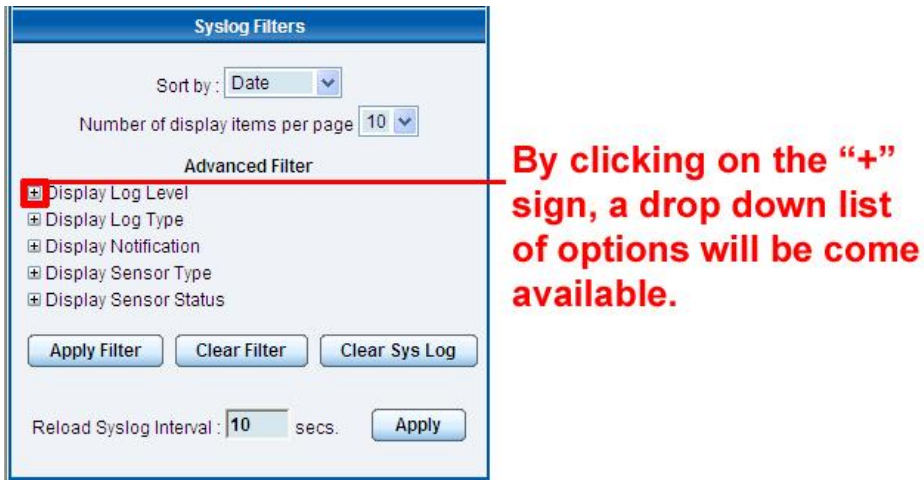
AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 13:18:42
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Summary Setting
Layout Setting
Sensor Filters
Sort by : Host Name
Advanced Filter
Display Status
Display Sensor Type
Display Host Name
Search :
Apply Filter
Clear Filter
Expand All Modules
Collapse All Modules
Reload Sensor Interval : 10 secs. Apply
Syslog Filters
Sensor Information
Host Name
Type
Sensor Name
Reading
Status
Main Module
Module
Main Module
-
Normal
Module 0A000764
Module
Module 0A000764
-
Normal
Sensors status will be reloaded in 10 secs
System Log (33 messages)
1 2000/01/06 10:43:04 Temperature Port 8 is 27.5 °C, status is Normal
2 2000/01/06 10:38:16 Temperature Port 8 is 30.0 °C, status is High Warning
3 2000/01/06 10:11:59 Dual Temperature Port 8 on Module 0A000764 is 26.8 °C, status is Normal
4 2000/01/06 10:11:59 Dual Humidity Port 8 on Module 0A000764 is 56 %, status is Normal
5 2000/01/06 10:11:55 Module 0A000764 is enabled
6 2000/01/06 10:08:23 Module 0A000764 Connection State on Module 0A000764 status is Normal
7 2000/01/06 10:03:29 Module 0A000764 is disabled
8 2000/01/06 05:55:01 Temperature Port 8 is 27.5 °C, status is Normal
9 2000/01/05 16:18:52 Temperature Port 8 is 30.0 °C, status is High Warning
10 2000/01/05 10:31:42 Temperature Port 8 is 27.5 °C, status is Normal
System Log will be reloaded in 09 secs
Your changes are displayed here
©1991 - 2000 AKCP All rights reserved.

2) Syslog filters

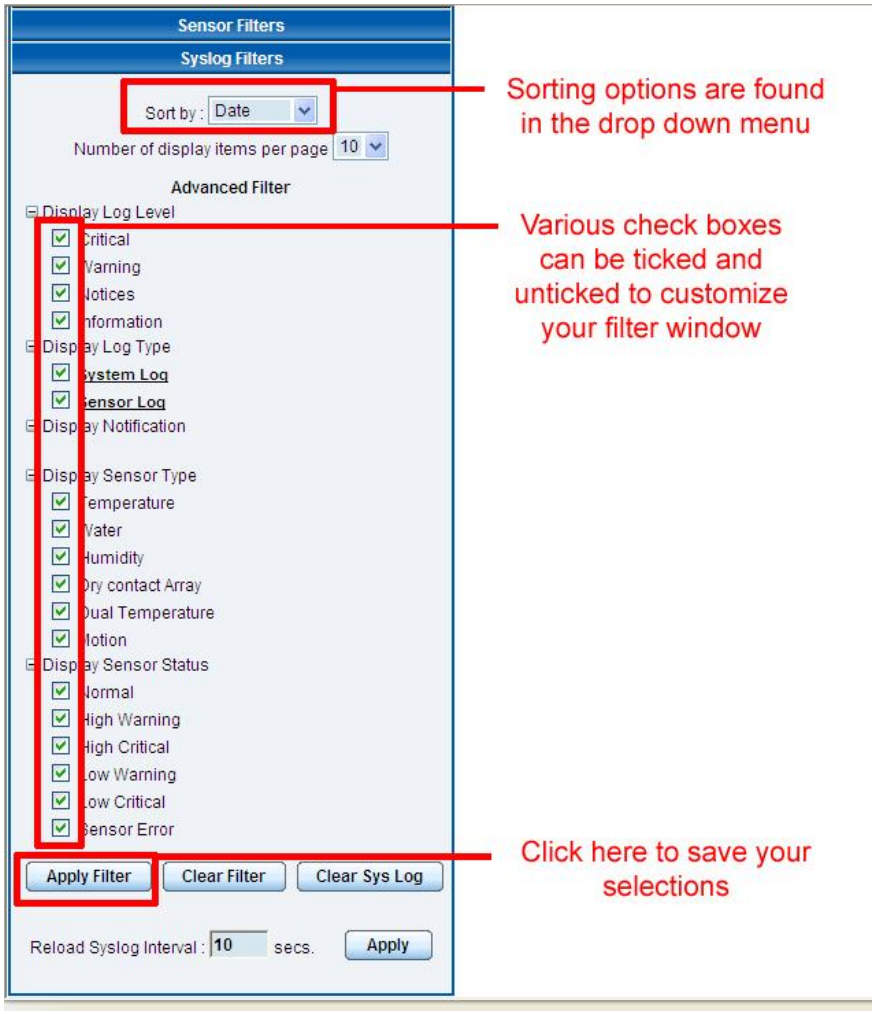
Syslog filters enable you to customize your syslog window. To begin select the “Syslog filter” tab found on the summary page:-



Once you have clicked the tab you will be able to select your filter results by altering various fields of information contained within syslog filter window:-

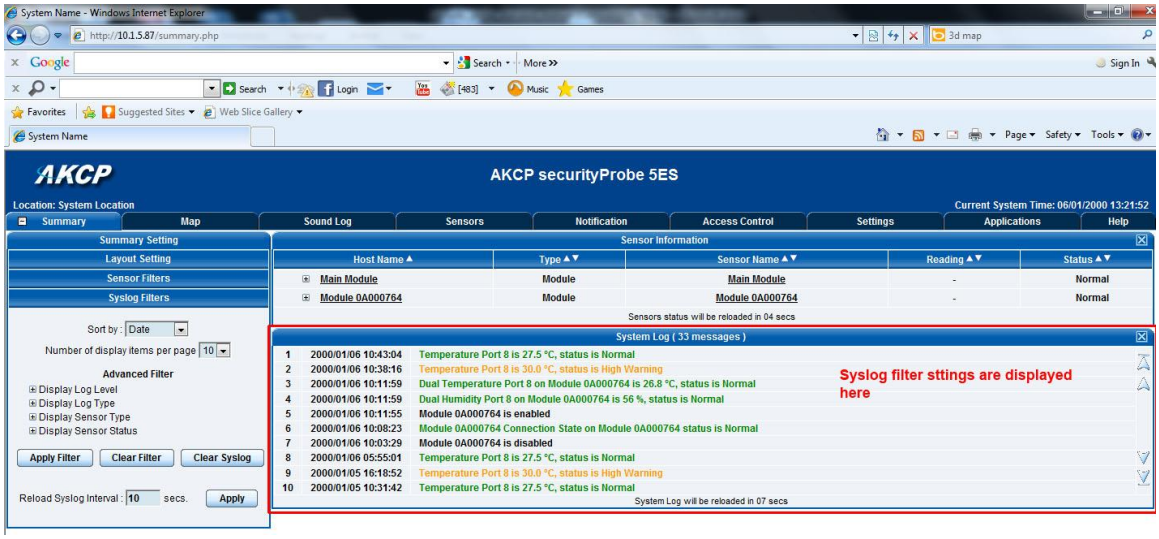


By checking and un-checking various boxes within the Syslog filter window you can customize your displayed results contained within the syslog filter.



Altering your reaload interval can be achieved by using the options shown below:-

Once you have selected your preferred filter options, your new settings will be displayed in the “System log Information” window found on the summary page:-


System Name - Windows Internet Explorer
http://10.1.5.87/summary.php
AKCP securityProbe 5ES
Location: System Location
Current System Time: 06/01/2000 13:21:52
Summary
Map
Sound Log
Sensors
Notification
Access Control
Settings
Applications
Help
Summary Setting
Layout Setting
Sensor Filters
Syslog Filters
Sort by : Date
Number of display items per page 10
Advanced Filter
Display Log Level
Display Log Type
Display Sensor Type
Display Sensor Status
Apply Filter
Clear Filter
Clear Syslog
Reload Syslog Interval : 10 secs.
Apply
Sensor Information
Host Name
Type
Sensor Name
Reading
Status
Main Module
Module
Main Module
-
Normal
Module 0A000764
Module
Module 0A000764
-
Normal
Sensors status will be reloaded in 04 secs
System Log (33 messages)
1 2000/01/06 10:43:04 Temperature Port 8 is 27.5 °C, status is Normal
2 2000/01/06 10:38:16 Temperature Port 8 is 30.0 °C, status is High Warning
3 2000/01/06 10:11:59 Dual Temperature Port 8 on Module 0A000764 is 26.8 °C, status is Normal
4 2000/01/06 10:11:59 Dual Humidity Port 8 on Module 0A000764 is 56 %, status is Normal
5 2000/01/06 10:11:55 Module 0A000764 is enabled
6 2000/01/06 10:08:23 Module 0A000764 Connection State on Module 0A000764 status is Normal
7 2000/01/06 10:03:29 Module 0A000764 is disabled
8 2000/01/06 05:55:01 Temperature Port 8 is 27.5 °C, status is Normal
9 2000/01/05 16:18:52 Temperature Port 8 is 30.0 °C, status is High Warning
10 2000/01/05 10:31:42 Temperature Port 8 is 27.5 °C, status is Normal
System Log will be reloaded in 07 secs
Syslog filter sttings are displayed here

7) Making my unit visible on the internet

So far the manual has simply covered the basic set up. The setup we have just created will allow you to access your unit on a Local Area Network (LAN), monitor via the web based interface or with SNMP traps.

However, what if you wish to be able to remotely access your unit from anywhere in the world? This is possible; however, the following steps are only an outline guide. Your exact setup and configuration will often depend on your network equipment. You are going to need access to your router, if you are using one, and knowledge of whether your IP address is static or dynamic.

1) Simple setup

a) Lets imagine that your unit is connected to a router on your network, and the following IP addresses are assigned.

Your units IP address is the default 192.168.0.100.

Your computers IP address is 192.168.0.200

Your routers IP address is 192.168.0.300

b) To find out your routers external IP address go to www.whatsmyip.com

Lets imagine your routers external IP address is 278.67.04.09

c) You now need to setup port forwarding on your router. This varies depdning on your routers model. Generaly you need to point your browser to your routers IP address (in this case 192.168.0.300). This will then allow you to log into your routers administration interface. You can find how to go about doing this for your router on www.portforward.com For an example of how to do this for a commonly used router follow this link :- http://www.portforward.com/english/routers/port_forwarding/Linksys/WRT54G/HTTP.htm

You need to setup your routers HTTP forwarding to port 80. This will then mean when you access your router using the external IP address you will be forwarded to your units internal IP address.

d) To test this, open your web browser, and go to your external IP address (in our example 278.67.04.09). If your using a dynamic IP address, its best to check it again before doing this as it may have changed since the start of this tutorial.

e) To make this easier you could use a dynamic DNS (Dynamic Name Server). This means you no longer need to remember IP address's or use www.whatsmyip.com to find out your IP address. You will instead register a domain name (for example mysensorProbe2.homeip.com). This will then automatically point your routers external IP address (e.g. 278.67.04.09). This will require you to register the domain name and open an account with a DNS server provider. We recommend www.dyndns.com as they allow up to 5 free domain names to be registered.

f) If you have set everything up correctly you will now be able to access your unit from anywhere in the world by simply pointing your web browser to your DNS address.

FAQ

a) I can not see the temperature sensor displayed on summary page

b) I can not access my units web based interface

c) What do my LED lights mean?

d) I have forgotten my units IP address

e) I have forgotten the password for my unit

f) Can I use DHCP to assign my units IP address?

g) How do I set up my routing table?

h) How can I change my administrator password?

i) What functions do different types of notifications provide?

j) Can I connect my unit via WiFi?

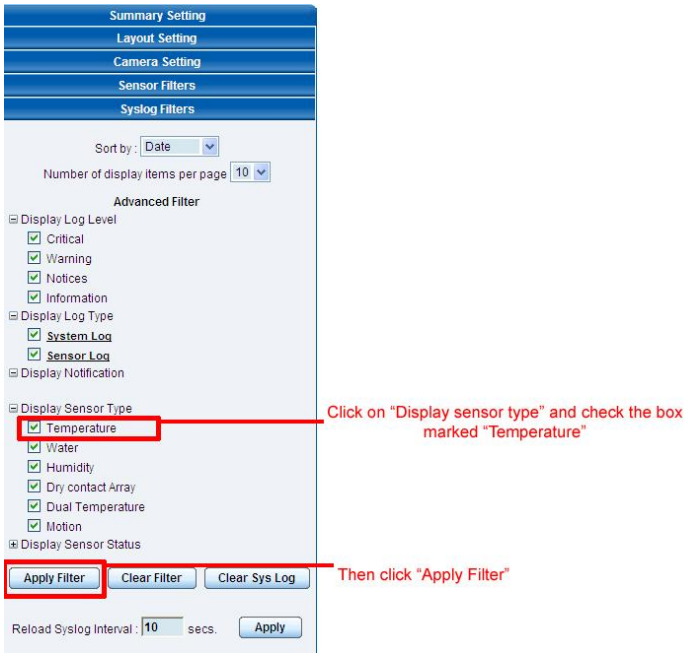
k) What is the heartbeat message?

l) What is the Network Sniffer?

j) Can I use the unit to make video conferencing calls?

a) I can not see the temperature sensor displayed on summary page

If after logging in for the first time with the temperature sensor connected, you may need to do the following:-



Next click on apply filter. The temperature sensor should then be displayed in the list of connected sensors.

b) I can not access my units web interface

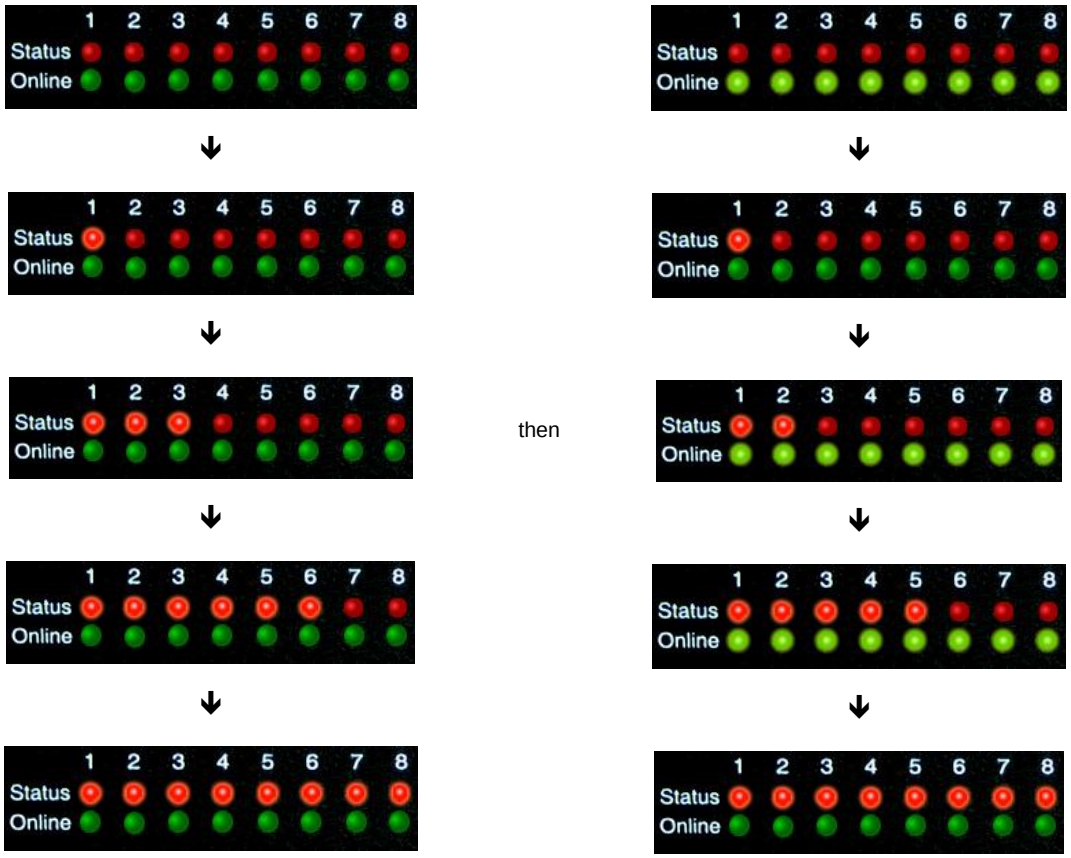
If you're having issues with network connectivity, first ensure that the link100 LED is lit on the front display of the unit. If this is not lit then you have no network connection present. If this is the case then ensure the following :-

1. If connected directly to a PC ensure a good quality crossover cable is being used
2. Ensure a standard CAT5 Ethernet cable is being used to connect to your network

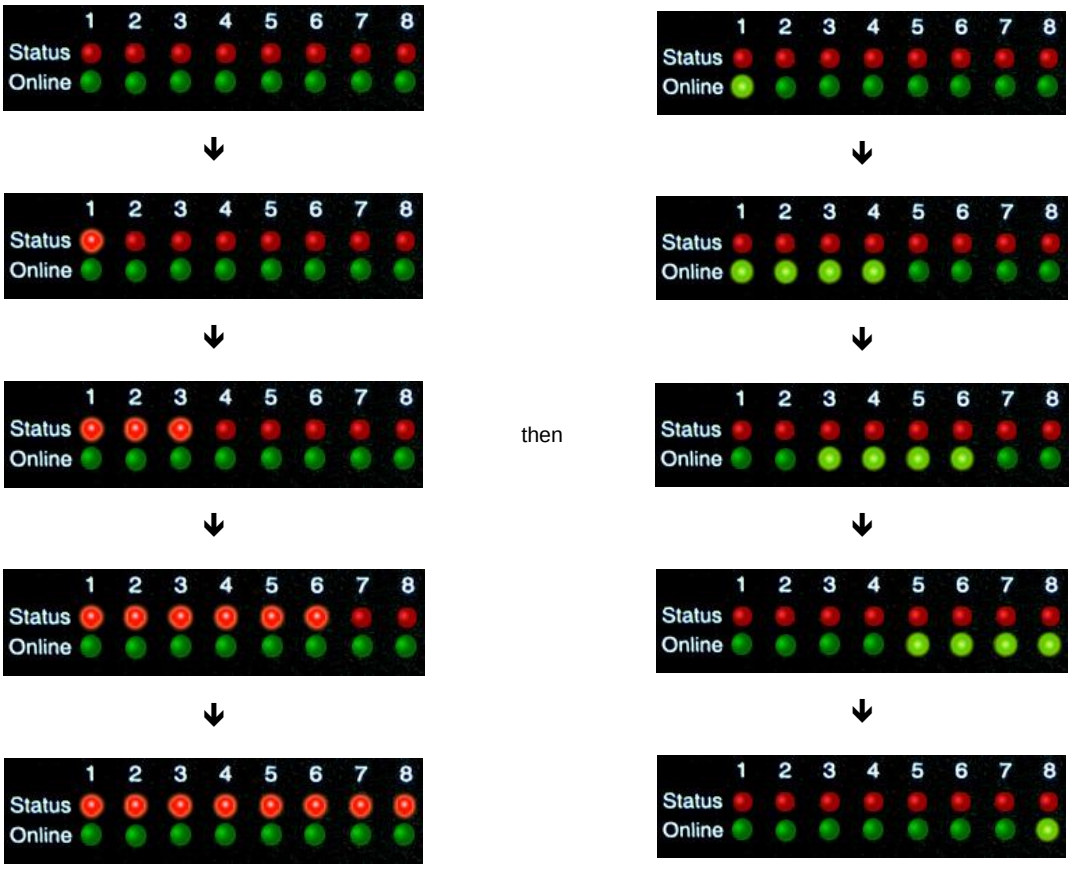
c) What do my LED lights mean?

The following diagrams show what the various LED displays mean.

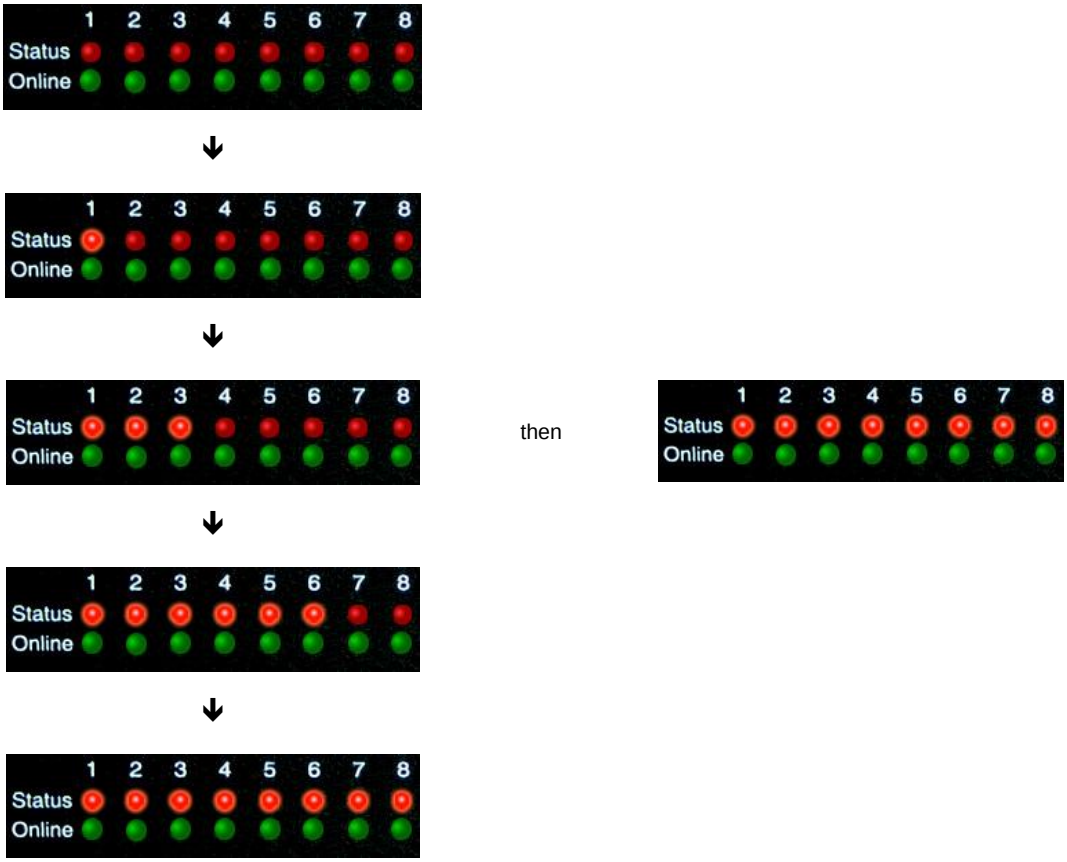
LED patterns in **Normal mode**



LED patterns in **Safe mode**



LED patterns in **Recovery mode**



LEDs run clockwise after the power is connected.

From left to right each LED indicates

1st LED: U-Boot init
2nd LED: Kernel loaded with good CRC
3rd LED: Board init
4th LED: Serial port
5th LED: Ethernet
6th LED: NOR Flash
7th LED: NAND Flash
8th LED: Root file-system mounted. Starting init process

After the root file-system is mounted, all green LEDs will be flashing, and red LEDs light increasingly from left to right. The onboard web-server can be accessed during this time and shows a splash screen with boot details. After the boot process is finished the LEDs show the status of the online sensors.

d) I have forgotten my units IP address

If you have forgotten the IP address of your unit then you can simply press the rest button on the back of the unit. This will then announce the IP address through the units internal speaker.

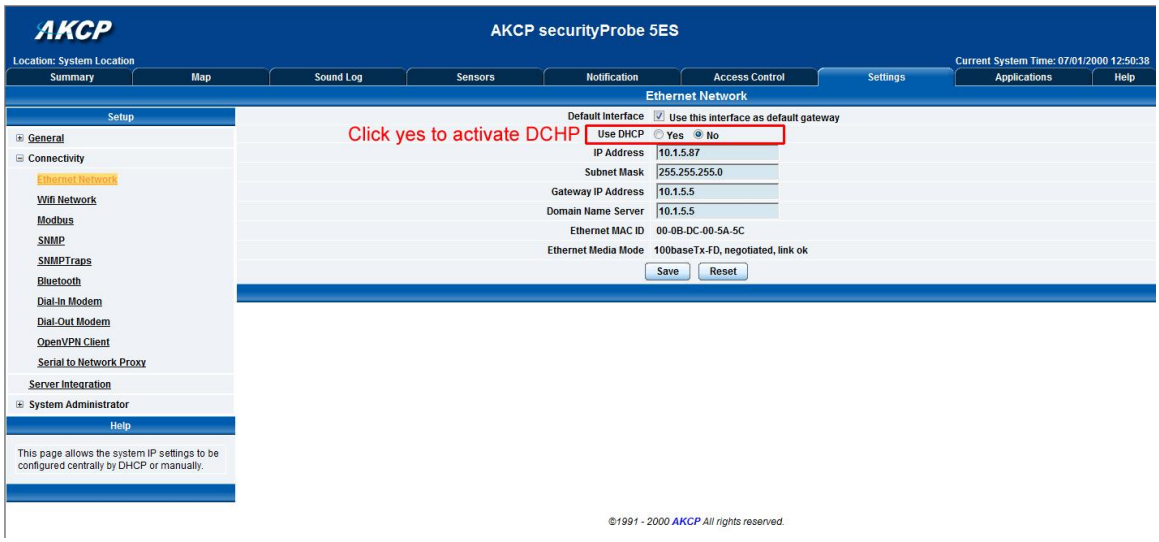
e) I have forgotten the password for my unit.

Hold down the reset button for 7 seconds. This will turn off the use password feature for the web based interface. This will remain turned off until you hold the button down for a further 7 seconds, or the unit announces *"Now turning off password checking"*.

Note: This will turn off the password checking for accessing the web interface only; you still have to enter the password when access the system via telnet.

f) Can I use DHCP to assign my units IP address?

Yes, you can use DHCP to assign the IP address. The unit ships with this disabled. Therefore to turn it on you need to log into the web interface and navigate to the Ethernet settings by way of clicking the "security" tab, "Ethernet Network" and then clicking on the YES button for "Use DHCP".



Note: If the unit has a static IP address assigned it will no longer send out DHCP requests. If you later wish to turn DHCP back on you can do that using the Web based interface.

g) How do I set up my routing table?

*To set up the routing table, open a DOS window (start, run type *command* press enter) and at the command prompt enter.

```
>route add 192.168.0.100 10.1.1.20
```

Where `10.1.1.20` is the IP address of the Ethernet interface on the PC that the unit is plugged into with the crossover cable.

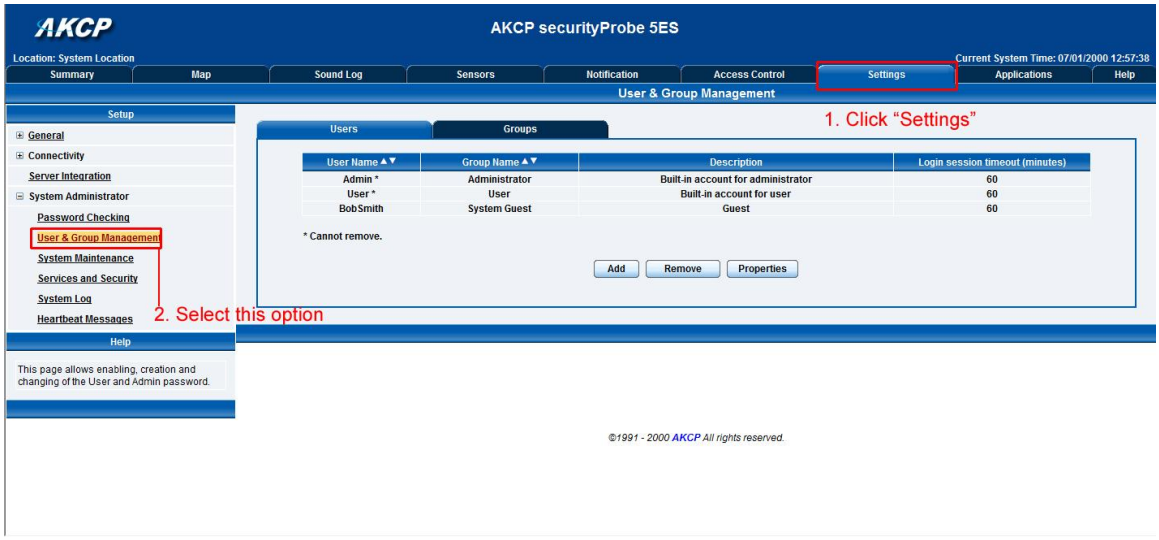
Now ping* 192.168.0.100 to see if the connection was successful.

h) How can I change my administrator password?

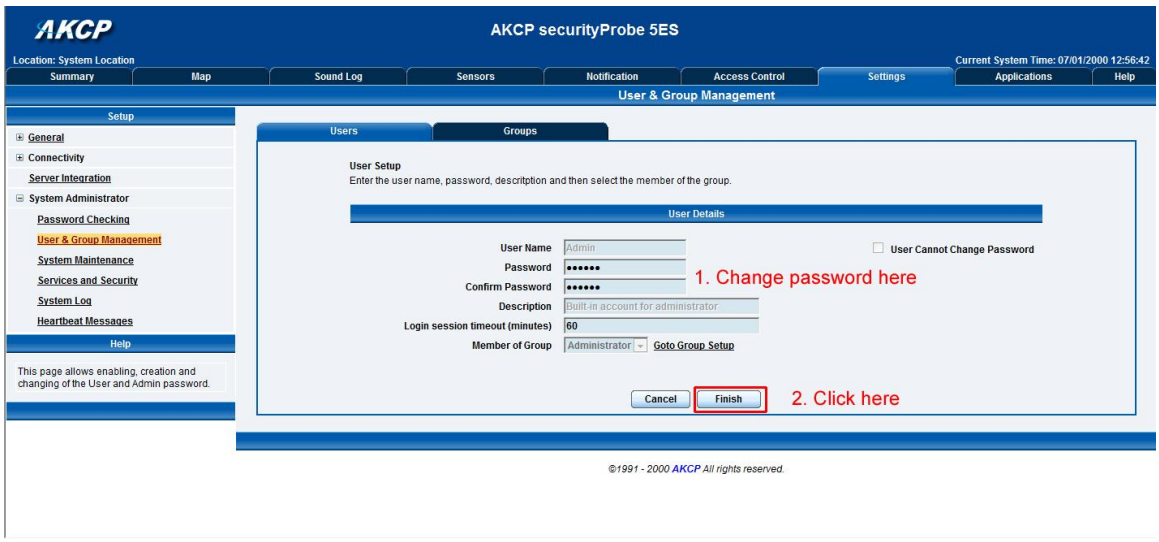
If you wish to make your unit more secure and change the administrator password from the default (public) to your own choice follow these steps :-

1) Log into your unit using the default password.

2) Point towards the settings tab.



3) Click on properties which will bring you to the following page:-



i) What function do the different types of notifications provide?

The notifications are used to notify you when a sensor reading has hit a certain preset "critical" threshold. There are many ways you can be notified. They are as follows :-

SNMP Trap: This form of notification sends out a signal to your SNMP server.

E-Mail: This sends a notification via e-mail.

SMS: This sends an SMS message to your mobile phone.

MMS: This will send you a multimedia message to your mobile phone. This can include an image captured from one of the sensor probes cameras.

Relay: The relay is used as a switch, for example it could switch on an air con unit if the temperature reading of a temperature sensor reaches a certain threshold.

Alarm sound: This notification will sound an alarm.

Speech: Creates a text to speech notification.

Picture log: Creates an action where the camera logs a series of images when a certain event happens.

Telephone call: Will call you and play a pre recorded message or a text to speech message.

Custom script: Allows you to load a custom script that runs on a sensor reading a pre set parameter.

Fax: Will send a Fax to you with a notification message.

Sound log: creates a log of sound captured with the internal / external microphone.

Siren and strobe: will activate a siren and strobe light.

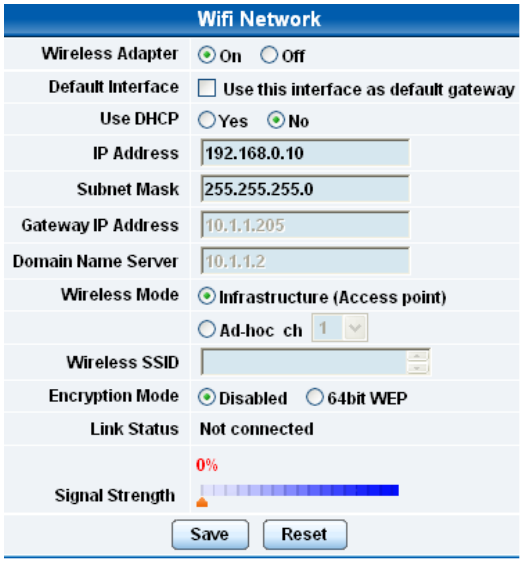
Mobile access: Gives you the function of viewing the camera attached to your security probe via your mobile phone.

Wake up / Shutdown: This will send a signal to wake or shut down a server.

If you require any assistance in setting up of these please contact us on support@akcp.com

j) Can I connect my unit via WiFi?

Yes you can connect the unit via WiFi. Simply plug a USB dongle into the USB port on the rear of the unit. You then need to configure your connection type, and encryption key etc. You do this from the web based interface in the settings tab and the connectivity option. The dialogue for configuring the WiFi is shown below.



k) What is the Heartbeat message?

This setting is to have the securityProbe notify you it is still running. You can be notified by either traps or by e-mail:

Alive Trap settings: *Send Keep Alive Traps (Default Off): Select on if you want the system to send Alive Traps.*

Destination: *enter the IP address of the server to send traps to.*

Community: *SNMP community string.*

Resend Interval (mins): *The period of time between each keep-alive trap. Values range from 1 to 65535 minutes.*

l) What is the network sniffer

The Network Sniffer application can be used to capture network packets running to and from the securityProbe, and all the network traffic. You can then import the captured file into Ethereal or TCP dump for details of these network packets. The network trace will help in debugging any network problems; for example, if e-mail cannot be sent.

j) Can I use the camera for a video conferencing call?

Ye sit is perfectly possible to use the camera and the integrated microphone to make a video conferencing calls. To do this you need the software called “OpenPhone” running on your computer. This is included on the CD ROM that came with your unit. (Look for OpenPhone.exe). Next follow these steps:-

1. Initiate connection from OpenPhone (PC) to securityProbe.

    a) Open the program by double clicking "openphone.exe"

    b) Click the "Make Call" button, enter the IP address of the sensorProbe8Linux/cameraProbe8 to initiate a call in the "Address" field. Then, click "Ok"

    c) The unit will automatically respond to a call and establish the connection. You will then see the video, and hear sound from the unit.

2. Initiate connection from a securityProbe to OpenPhone (PC)

    a) Open the program by double clicking "openphone.exe"

    b) On the web interface, click on the ***Applications*** tab, and click on ***Video Conferencing.***

    c) select the **"*Call to*"** option and enter the IP address of the PC running OpenPhone. Click **"*Save*".** to discover your computers IP address in the command prompt type “*ipconfig”*

    d) On the OpenPhone application, click **"*Answer*"** to accept the call.

3. Connection between two sensorProbe8Linux/cameraProbe8 (only voice conference).

    a) On the web interface of the calling sensorProbe8Linux/cameraProbe8, click on the ***Applications*** tab, and click ***Video Conferencing***.

    b) On the right pane, select the "**Call to**" field and enter the IP address of the receiving sensorProbe8Linux/cameraProbe8 into this field. Click *"**Save**"*

    c) The connection should automatically establish.

You can end the video conference call by doing the following:-

1. End the call on OpenPhone (PC): to end call, click the ***"Hang Up"*** button on the OpenPhone. This method can be used to end the call between the system and OpenPhone.

2. End the call on the unit: From the web interface, click on the ***Applications*** tab and click on ***Video Conferencing***. On the right pane, select *"End call and wait for a new incoming call"* option. Then, click ***"Save"***